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ABSTRACT

Proceedings are presented of the first conference on graduate vocational education. Papers read at that conference discuss the following topics: (1) The Quest for Quality--Guidelines for the Search; (2) Motivation for the Search for Quality in Graduate Vocational Education; (3) Dimensions of Quality--The Student's View; (4) Dimensions of Quality--The Professor's View; (5) Some Thoughts Concerning Indicators of Quality in Graduate Education; and (6) Views on Quality. Task force reports to the conference are included and deal with curriculum, selection and admissions, dissertation study, and manipulative points for having an impact upon controlling quality in vocational education graduate programs. The report concludes with a paper entitled "Leadership Through Scholarship: Looking Ahead in Operationalizing Ideas." (CP)

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QUESTING FOR QUALITY IN
GRADUATE VOCATIONAL
EDUCATION

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Conference on Graduate Vocational Education

Sponsored by

UNIVERSITY COUNCIL FOR VOCATIONAL EDUCATION

Report edited by

Joe R. Clary

Keystone, Colorado

July 28-30, 1978

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FOREWORD

As a feature of its annual Representative Assembly, the University Council for Vocational Education initiated, in 1978, a professional development conference for institutional representatives and guests.

The theme chosen for the first conference, "Questing for Quality in Graduate Vocational Education," tied in well with the mission and objectives of the Council. Enthusiasm abounded at the Conference. Presenters and participants engaged in lively and productive discussions.

A note of thanks is expressed to presenters and participants in the Conference and to the Conference Planning Committee.

This report has been prepared for review by and use of representatives of member institutions of the University Council and Conference participants.

I am pleased to commend it to you.

Joe R. Clary
President (1979-80)

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THE UNIVERSITY COUNCIL FOR VOCATIONAL EDUCATION

The University Council for Vocational Education is a national organization chartered in 1976 and engaged in defining, supporting and developing the roles and functions of vocational education from a university perspective.

More specifically the organization was formed to:

1. Provide a university-based forum for appraising the role and function of vocational education.
2. Provide a voice for universities regarding points of view and common sense propositions on a variety of issues confronting vocational education, including teacher education and research for vocational education.
3. Explore diverse areas in vocational education, and areas related thereto, to develop new knowledge and to ascertain its effective use.
4. Provide a mechanism for improving the capacity of institutions of higher education for professional development in vocational education.

THE PROGRAM

QUESTING FOR QUALITY IN GRADUATE VOCATIONAL EDUCATION

Objectives:

To stimulate improvement of Vocation Education
Graduate Programs by:

- (1) Delineating the mission of graduate vocational education
- (2) Identifying the characteristics of quality graduate programs in vocational education
- (3) Identifying exemplary program elements for leadership, research, and service in graduate vocational education
- (4) Identifying techniques for assessing vocational education graduate leadership development programs

Friday, July 28, 1978

First Session

Presiding: Dr. Joe R. Clary, North Carolina State University

3:30 p.m. Call to Order - Introduction of Participants - Joe R. Clary, North Carolina State University

The University Council on Vocational Education - Jerome Moss, Jr., University of Minnesota

3:45 p.m. Keynote Address - "Questing for Quality - Guidelines for the Search" - Dr. Al Krebs, Vice-President for Administration, Virginia Polytechnic Institute and State University

4:30 p.m. "Buzz Sessions"

Buzz Sessions Leaders:

- .Dr. Annell L. Simcoe, Rutgers, The State University of New Jersey
- .Dr. George O'Kelley, University of Georgia
- .Dr. Joel Galloway, Oregon State University
- .Dr. Richard Whinfield, University of Connecticut
- .Dr. Harold Binkley, University of Kentucky
- .Dr. Melvin Barlow, University of California at Los Angeles
- .Dr. Mel Miller, University of Tennessee

4:45 p.m. Questioning the Keynoter
(Questions from the buzz sessions)

Second Session

Presiding: Dr. Jerome Moss, Jr., University of Minnesota

7:30 p.m. "Motivation for the Search for Quality in Graduate Vocational Education" - Dr. C. O. Niedt, Academic Vice-President, Colorado State University

"Application to our Program" - Selected Participants

Saturday, July 29, 1978

Third Session

Presiding: Dr. Dewey A. Adams, The Ohio State University

Dimensions of Quality

9:00 - 10:00 a.m. The Student's View - Panel of Doctoral Students,
Leadership Development Program, Colorado State
University

- . Richard Feller
- . Sandra Crabtree
- . Jack Smith

10:00 - 10:30 a.m. Coffee Break

10:30 - 11:30 a.m. The Professor's View - Panel of University Deans
and Professors in Leadership Development Programs

- .Dr. Carl Dolce, Dean of the School of
Education, North Carolina State University
- .Dr. Frederick Cyphert, Dean of the College
of Education, The Ohio State University
- .Dr. Gordon Swanson, Professor of Vocational
Education, The University of Minnesota

Fourth Session

Presiding: Dr. Rupert Evans, University of Illinois

1:00 - 3:30 p.m. Task Force Work Sessions to Examine Models for
Implementation

Task Force Chairpersons:

- .Dr. Dan Vogler, Virginia Polytechnic Institute
and State University
- .Dr. Harold Anderson, Colorado State University
- .Dr. Carl Schaefer, Rutgers, The State University
of New Jersey
- .Dr. Lloyd Briggs, Oklahoma State University

Fifth Session

Saturday Night in the Rockies - Individually arranged
informal interaction "Saturday night style"

Sunday, July 30, 1978

Sixth Session

Presiding: New President of University Council for Vocational Education

9:00 a.m. Summary of Task Force Reports - Task Force Chairpersons
Conference Outcomes and Report - Presiders of Sessions
"Operationalizing the Ideas, A Looking Ahead," -
Dr. Robert E. Taylor, Director, The National Center
for Research in Vocational Education, The Ohio State
University
10:30 a.m. Adjournment

Conference Program Committee

Dr. Dewey A. Adams, The Ohio State University
Dr. Joe R. Clary, North Carolina State University
Dr. Rupert Evans, University of Illinois

THE QUEST FOR QUALITY - GUIDELINES FOR THE SEARCH

A. H. Krebs, Vice President for Administration

Virginia Polytechnic Institute and State University

As I reviewed the capabilities of this group, I was reminded of the response of a Nebraska lady when I asked her for directions to Red-bird, Nebraska. Her response was, "Go back out to the road, turn right at the first corner, and stop and ask the first person who knows more about it than I do." It would appear that you have an entire attendance with more knowledge of the issues being discussed than do I. However, the appeal to one's ego is most difficult to resist, and so here I am. In addition, the topic has a personal meaning, since it deals with the quality of the program from which I secured my own graduate education. The status of graduate work in vocational education is important, also, to all who are served by the successful graduate student. When these values are added to my belief that vocational programs provide the best education ever made available for youth at the secondary level, the effort being made to improve the quality of graduate programs in vocational education seem eminently worthwhile. The formulation of guidelines for the search for quality is, indeed, a critical task.

Before I begin with development of the guidelines for the search, let me share with you some examples of the comments made about graduate education generally by concerned faculty and others. The negativism

comes through strongly largely because the discussions focused on problems in graduate education. The comments are self explanatory.

1. Grades of "A" have been given to students who never attended a class.
2. Faculty have canceled classes whenever they have wanted to do something else.
3. Faculty have used classes to discourse about their personal lives.
4. Faculty have exhibited a lack of personal integrity.
5. Some dissertations are both poorly written and lacking in substance.
6. Some faculty brag about having as many as 40 to 50 graduate student advisees with most of them doing dissertation research.
7. Some courses are poorly taught and lacking in content.
8. Some faculty do not serve as good role models for students.
9. Graduates of some programs can't find jobs.
10. Some graduate faculty are incapable of directing a dissertation.
11. Many of the students who can't make it in one program go into another.
12. The students all come from either the home institution or from lesser quality institutions.

Some of the factors given by faculty as important in and even as the only basis for judging the quality of graduate programs included the following:

1. A research production.
3. A rigorous program which only the very best students can master.
4. A quality faculty of sufficient size to provide the varieties of expertise needed in a discipline.

The strong emphasis on research, especially at the doctoral level

was a constant. Of significance was the complete failure of anyone to mention ability to teach classes well as a necessary characteristic of a graduate faculty.

It seemed clear, however, from the comments made by those with whom I have talked that the elements of a graduate program are four in number:

1. Students
2. Faculty
3. Program or curriculum - largely research
4. Institutional objectives and support

Thus, the search for quality must focus on what can be done with regard to these four elements. We should keep in mind, of course, that the thrust of our programs should be to develop scholars in vocational education with an emphasis on an identifiable vocational field of study. An identified discipline is basic to a graduate program.

The Student

I'm not at all sure that there is much new light which can be shed on the student element of graduate programs. There would appear to be no one who does not recognize the need to attract high quality students.

Based on general observations of several disciplines, however, I offer the following characteristics as those possessed by quality graduate students:

1. A student who is academically able. While not all students will be in the genius category, all should be sufficiently able academically to master the subject matter in the major and to compete easily with other students in core courses. Student quality plays a major role in devel-

oping quality graduate programs. Without capable graduates from programs, it would be difficult to sustain a claim to quality. Accepting a failing transfer from another program is a sure way to get a reputation for low quality.

2. A student who loves his field of study. I am still a believer in the thesis that the best teacher in any of the vocational fields, actually in any field or discipline, is a person who knows the field and enjoys working in it.
3. A student who seems to understand what service to people is all about. In addition to a student's being able to enjoy his subject field, one who aspires to educate others to teach well should know what working with people, what service to people, really means. An emphasis on and a capability in research are not enough to compensate for an absence of a service orientation in vocational education.
4. A student who writes and speaks well. A person who is unable to use the English language well is considered uneducated and lacking in the qualities which symbolize quality in a graduate program.
5. A student who is well organized personally and in his work. While the eccentric professor stories provide for good entertainment, they contribute little to the creation of the image of quality sought in a graduate program.

Again, let me emphasize that the quality of the graduate of the graduate education program is a major factor in demonstrating the quality level of that program. If quality graduate programs are sought, it is also mandatory that we seek quality graduate students.

The Program - Curriculum

Many of the negative comments about quality in graduate education related to the program itself. This is most fortunate, because the program is more amenable to control and change than is any of the other four elements being discussed.

As graduate programs are discussed, the major components most often mentioned are:

- the research component - dissertation
- knowledge in the discipline - course content
- experience
- scholarly development

Other components in which vocational educators should be interested are teaching competence and administrative competence. As mentioned before, the student is expected to have the ability to express himself or herself well in writing and orally. If a student has difficulty in self expression, the difficulty should be correctable and corrected prior to completion of the graduate program.

Perhaps the greatest hindrance to quality in graduate programs is the effort made to build in quality through strict regulation of details by Graduate Schools. The effort is basically futile, since the quality of the program depends heavily on the quality of the student and on the quality of the faculty. A student with limited ability is limited in what he can accomplish. A faculty limited in ability can provide little leadership and direction for the student in program planning or in research. High quality in both students and faculty can compensate for weaknesses in other elements.

It is true, however, that highly structured graduate programs can frustrate both students and faculty advisors as they attempt to plan and implement sound individualized graduate programs.

The best program structure about which I have heard was described to me by a Plant Pathologist who said they had no credit hour requirements; that they simply had a flat tuition and fee charge for each semester when the student registered; and the program was especially designed to meet the needs of the individual in terms of competence in the discipline and in research. This approach seems to have much to recommend it. The quality dimension depends to a great extent, of course, on the quality of the faculty and students. Even with this approach, a program contains many courses. There simply is no better or economically feasible way to help students learn what they need to know than a well organized body of content. The freedom to plan does carry with it -

- the opportunity to provide breadth in a program.
- the opportunity to develop the program to fit needs making use of whatever resources are available - courses, self-study, conferences with faculty, experience in the work of the vocational education professional.

Of course, this approach would also demand strong standards for evaluation of student progress and a mix of faculty capabilities to help students in special areas of need - if not on the faculty of the specific discipline, at least available within the institution. Especially at the doctoral level, the development of a research capability also seems paramount. This, for vocational education, requires recognizing the kind or type of research appropriate to an applied discipline such as testing the findings of

psychology, sociology, anthropology, economics, and other disciplines for application.

The program element that gives me the greatest difficulty in presentation to you is that of defining the content of vocational education as a discipline. It was most disturbing to me to hear faculty in other disciplines say that education courses had no value. I'm sure this is true in some places, just as it is true of some courses in some places in all disciplines. But I do believe that education, as a discipline, is not well defined. There seem to be too few stable principles, too little in the way of a firm foundation of principles and philosophy to which the profession as a whole subscribes, and too much of opinion and of implementation of new approaches without the formality of rigorous testing before implementation. I have the feeling, too, that there are too many courses which duplicate the content of other courses or which are given the status of graduate level numbers through the magic of the term "advanced" or some other similar appellation. If we would develop quality graduate education programs in vocational education, or in any other discipline, the careful delineation of the subject matter content is essential. If it takes a certain length of time and a certain amount of work with a graduate faculty to prepare a person professionally, let that time and effort be in the area of independent study and research rather than in hour after hour of debilitating, meaningless course work which exists for the one and only purpose of building up credit hours in a discipline. Whatever courses are offered should be of substance. For the development of a stable philosophy, the profession could well turn to the AVA yearbook series and other literature in the field. Study and modifications of what is expressed in the

literature could serve well as a starting place.

In the final analysis, the scholarly development of the individual student is probably dependent on the work done in relation to a solid research effort, courses which add breadth to a student's background, and independent study. Thus, these parts of a program need to be strengthened, even at the cost of a reduction in the credit hours of standard courses in the discipline. Incidentally, the two criteria most often mentioned as the basis for evaluation of the quality of the research were publishability and outside funding for it.

With a program emphasis as described, we should develop in our students the knowledge, the understanding, and the capacity for judgment (wisdom) essential to a successful career.

The Faculty

The need for a quality faculty has been mentioned many times already. It is also an obvious quality factor, one which must be consistent and compatible with what has been said about student quality and program quality. Is it not, after all, just a bit frightening to think we might return to this life in the forms of graduate students studying under some of the graduate students we have accepted and guided through our graduate programs? Think about it! It may make you a bit more concerned about student selection and program development.

Faculty need all of the qualities we seek in the graduate student plus:

- a teaching competence at the University level.
- a respect for all disciplines, not just one's own.
- a solid ability to direct the research of others and an identified strength of one's own.

As implied in the comments regarding programs, there may also exist the need for an interdisciplinary faculty to provide the expertise needed. Certainly, the expertise must be available and this fact must be well known if the designation of quality program is to be appropriate. The identification or definition of the proper mix of disciplines or specialties needed in the faculty may be the most critical of the tasks facing you as you struggle with the quest for quality programs. We have for too long tended to believe the faculty for a discipline should consist only of persons who have studied that particular discipline. A sociologist, a statistics expert, or other discipline representative or representatives could add the touch that refreshes a vocational education faculty. As members of vocational education faculties, experts in other disciplines would be in better position to teach the needed subject matter with true meaning for the vocational education student.

Institutional Support and Objectives

This is a difficult element with which to deal, but it is also critical to the development of quality graduate programs. For example: Libraries are the heart of good graduate programs. No department can afford to divert enough of its scarce resources to provide its own library. Computing resources are becoming more and more essential. These, too, must be made available as an institutional resource rather than as a departmental resource. Instructional development units are very valuable in helping faculty improve the quality of teaching. This, too, is an institutional resource commitment. Departmental budgets and classroom/laboratory facilities must be adequate and these are products of central administrative decision making.

Objectives and mission of the institution help determine how a department can grow. If an institution doesn't believe in extension/continuing education, much of the vocational education program development would cease. Institutional goals may also help determine the extent of commitment to libraries, computing resources, and other resources needed.

A research unit of some kind to assist departments in developing a research program is mandatory in this day and age.

Then, of course, the supporting faculty and programs - statistics, sociology, psychology, anthropology, technical fields, administration - all are essential. There is some movement toward providing certain resources on a consortium basis, and this should not be overlooked as a possibility. Small departments, especially, should even examine this approach for providing needed faculty expertise. It could be exciting.

What is implied by all of this is, of course, that a quality graduate program will not exist where institutional support is too limited.

Summary - the guidelines

If there is a summary in the form of guidelines for the search for quality graduate education to be found in these remarks, it could be as follows:

1. Define well the content of the discipline. There should be a clear distinction between undergraduate content and graduate content, since graduate work is supposedly built upon a strong undergraduate base of knowledge. In addition, the graduate content should be sufficiently clearly developed and divided to avoid useless duplication and overlapping among courses. Included in the content analysis effort must be a consideration of content in closely related areas of study.

2. Emphasize in the program the search for new knowledge, the search for truth, and the critical examination of the basis of knowledge in one's field of study. It is this emphasis, more than any other, that distinguishes the program which develops scholars from the program which does not. Do not insist on the accumulation of credit hours for use as evidence of learning. Find other ways to assess student progress.
3. Provide for as much freedom in individualized program planning as can be obtained. Since funding is a necessary aspect of all education, consider a flat tuition and fee structure for each time a student registers, but demand quality program planning from the faculty advisers.
4. Provide for the faculty expertise needed. While four to five faculty are usually considered requisite to a graduate program, fewer than that can be made acceptable if proper cooperative relationships with other disciplines and with other institutions have been established. Too many advisees per faculty member is a sign of a "degree factory" development.
5. Seek qualified students. While all of us are people oriented and would like to believe that all who desire graduate education should be saved, the fact is that this just can't be. And to accept and put through a graduate program a student who is too limited in academic capability to do well does an injustice to the student, to the graduate program, and to those who will later study under someone who cannot provide quality instruction no matter how much effort the person makes.
6. Provide a faculty which has quality. In graduate education, especially doctoral level work, we must accept the fact that contributions to knowledge are requisite - both research and writing are essential. And

that means an identified area of research, a professional lifetime committed to the study of a narrow part of a discipline. And remember that professional and personal integrity are essential characteristics of a quality faculty. Faculty evaluation is, of course, just as essential to the development and maintenance of a quality graduate program as is evaluation of student progress.

7. Make certain the instruction is especially designed to meet needs if you are called upon to offer instruction in teaching to students in other disciplines. Do not attempt to meet those needs by having such students enroll in the same courses you offer students with a rich background in teaching and education. It is even more important to provide special experience and instruction for faculty from other disciplines. It hurts the quality image of our programs, and violates our own principles of teaching, when the instruction in teaching for persons in other disciplines is not properly designed.
8. Help students evaluate employment potential and opportunity straight through to the doctorate. Make certain that both student outlook and program provide for flexibility in occupational expectation and capability.
9. Build into the program reasonable quality standards. While it isn't sound educationally to offer a program even the faculty would fail to accomplish, it is just as detrimental to offer a program which does not challenge the student, which does not require the student to use fully the intellectual capacity brought to the program.
10. Analyze your institutional mission statement and list of objectives. They do have an impact on what an institution is and will be, and on

the program curriculum decisions which will be made. Be concerned when the mission statement and objectives are not sufficiently comprehensive to include what graduate programs in vocational education are all about and try to bring about change in them. Do protest when program decisions are made which are incompatible with sound mission statements and objectives even though the decision appears not to affect your program. Eventually, decisions incompatible with institutional objectives lead to changes in objectives, to changes in the character of an institution, and to the reduction of institutional support for programs no longer included in the total meaning of the objectives.

Support through your actions in committees and in other parts of your institutional governance structure those parts of the total institutional program needed for quality vocational education programs. It is not always wise to fight only for one's own program budget.

11. Maintain the same quality in graduate programs on-campus and off-campus. Length-in-residence is not the only quality issue; the provision of libraries, of laboratories, of other resources, and of access to other students and faculty are also important.
12. Remember that neither age nor education guarantees wisdom. And wisdom is the outcome desired from graduate study. You know wisdom when you see it, but it is impossible of precise definition. As you continue your quest, your search for quality, test each step, each decision against the best minds you have in your institution. Out of such an effort can come a quality of graduate program in vocational education which all educators can accept as the product of wise vocational educators.

Other Points Made During Discussion Session of Dr. Krebs' Presentation

- . Greatest risks are not in programs and admissions but in faculty selection and admissions.
- . Selection of students should be based on not just the record in school - not just performance - but on potential and capability.
- . Institutions do have a responsibility to match resources with mission. When mission and goals are raised without an increase in resources, programs are deleted at times of a pinch on resources. Resource decisions can have major effects - sometimes disastrous ones - on faculty and programs. Vocational education needs to be concerned about the program decisions made in other disciplines which provide programs vocational education depends on.
- . Extension includes quality graduate education off-campus as well as other activities.
- . A mission statement should include statements about the nature of research which ought to be the prime focus for higher education research.
- . There is nothing more vocationally oriented than a doctoral program. It is real specific in terms of content and in terms of occupational research.
- . When you look for increase in resources you look for three kinds of things basically: (1) the increase in need for personnel in the program as currently being conducted; (2) the new areas which could be added and which are needed (e.g. the environmental and the human services areas); and (3) the quality elements - we need to have a commitment to improve quality in all program aspects.

- . If we do research well in our field, others can take that and make application of it to other fields.
- . Graduate study is paid for mostly by society and not by the individual. Graduate education is a privilege and not a right, a privilege limited to a very small percentage of the population.
- . The scholar in a particular discipline is one who knows the basis of knowledge in that field, who is able to direct and perform research of that kind as well as applied research in the field, and who is able to communicate both orally and in writing for the benefit of the profession and others.
- . We need vocational educators as a part of the faculties of Curriculum and Instruction teams and faculties of Educational Administration Divisions.

Motivation For The Search For Quality in Graduate Vocational Education

C. O. Neidt

Academic Vice-President

Colorado State University

It is a pleasure to be with you. On behalf of Tex Anderson, I say, "Welcome to Colorado." He is a native and I am a 17-year person. So, its great that you are here in the Rockies and that you are taking time out to exchange ideas, to define directions, to evaluate, and to take a fresh look at your specific disciplines and your overall profession. It is a most commendable situation.

Tex and I have a very sybiotic relationship; in that, in exchange for all kinds of advice that I seek from him, he defines for himself the right to keep me fully informed about all aspects of vocational education at Colorado State University, in the State and region, in the nation, and on the international scene. So I feel that I am relatively among old friends, thanks to this relationship that Tex and I have developed over the years.

Philosophically, though, I am very much attuned to the objectives of vocational education, occupational education, adult education - all kinds of topics with which you deal and the general objectives to which you subscribe. They parallel my own orientation very closely in Industrial Psychology. And, combining that kind of background - that kind of discipline, that kind of educational philosophy - with a strong and lasting interest in graduate education, I do look forward this evening to exchanging ideas with you.

I'm very glad that Al Krebs said what he did because he said the kinds

of things that reflect familiarity with vocational education to a degree that I do not profess. And, whereas he commented that every person in the room knows more about vocational education than he does, I am convinced that this is not so. I was most favorably impressed with the depth of his thinking in terms of curriculum, the design of graduate programs, the selection of faculty and the conduct of graduate education.

What I propose to do this evening is a relatively - a totally - unique approach. It has never been done before. I have never attempted it with any other group. I am going to share some of my own unique material with you and ask you to react to it in terms of its implications for graduate education in vocational education.

For the past 18 years I have been working, as time permits, on an approach to understanding adult learning. Now, the concept I am interested in understanding is adult learning in all kinds of settings. I started this project in 1960 when I was with Mead Johnson and Company - a pharmaceutical firm. I have carried it on for five or six more years with management personnel. I then switched to a study of faculty personnel. And I am now moving to a focus on graduate education to determine the implications of what I am attempting to do for graduate study, the design of graduate programs, and the improvement of graduate programs.

It is a relatively difficult and high level kind of research in that it involves theory building and model testing and the testing and validation of the existence of categories of behavior. This takes time. It is relatively slow work. And getting cases to validate the existence of various kinds of categories of behavior is sometimes somewhat stressful.

When I started this project in 1960, there were almost no researchers

in the area. Now, there are literally hundreds. And the reference point is "development." Variousy listed in three recent journals were references to twelve different kinds of development - management development, executive development, personnel development, student development, faculty development, leadership development, instructional development, and professional development, to name some of the twelve that I identified to reflect the great concern that now exists for this particular topic. In 1961, another fellow and I, by the name of Buzz Wright, who at that time was with General Electric, used to conduct seminars for the American Management Association on the topic and we were about the only ones instructing these seminars. But now there are literally hundreds of individuals, practitioners as well as researchers, involved in various aspects of development.

My particular task, that I have defined for myself, is to contribute to knowledge a coherent, theoretical conceptualization which will allow us to understand what it is we are talking about when we refer to student development, faculty development, professional development, etc. I have gone from the terms "personnel development" to "management development" to "professional development" in my own evolution of the consideration of this topic. But, I have never deviated from my original objective of wanting to understand the development process and to be able to interpret it to other people in a coherent, cogent manner. I want to be able to predict, to manipulate, and to design situations in which development will be enhanced and I want to be able ultimately to control the process. This, then, relates to the three functions of science - understanding, prediction, and control. And, I think that much work of this kind is necessary, albeit time consuming and sometimes frustrating.

The methodology that I am using in my particular search for this type of truth is a derivation of the work of the experimental psychologist Titchner whom, you may recall, started a school of psychology called "structuralism," i.e., explaining in geometric forms, whether cones, cubes, or squares, or whatever, the relationships among variables and expressing them as "models." Other examples of this kind of approach to behavioral study would include Guilford's "Structure of Intellect." You may recall his postulated cube with 36 cells which he has been validating now since 1937.

My data are basically the longitudinal records of 400 managers and about 300 faculty personnel and I am now in the process of taking a look at student cases. The effort is to add structure to ambiguity, organization to disorganization, simplicity and reduction to diversity and complexity. It involves testing of the existence of each cell and then finding the relationship of each cell to all other cells in the model. In defining his "Two-Factor Theory of Motivation," Hertzberg came relatively close to the kind of thing that I am attempting to do. House, from the University of Michigan, after a review of the literature of some 2,000 articles, and organizing those articles, came relatively close to the kind of thing that I am doing. There are aspects of Maslow's work involving the "Hierarchy of Needs" and the concept of self-actualization that have implications for what I am attempting. And, of course, lots of learning theorists and lots of individuals in the areas of adult education and adult learning, are coming very close to the kinds of things I will be sharing with you tonight.

To make it a little bit more meaningful, maybe I should share with you some of the personal experience that got me started on this particular "kick." It is something like this. About 1958, I was sitting at my desk in Lincoln, Nebraska, trying to figure out how the department was going to

buy the next box of paper clips, when the telephone rang. A voice said, "This is Mead Johnson, president of the firm of the same name. We have heard of some of the things you have been doing with management personnel in the Lincoln area. We are very much interested in them. We have a great need for an individual to head up a program in our firm in which he will attempt to assure that management personnel are ready for additional responsibility as quickly as the firm is ready to give it to them." And then he went on to say that, "Whatever it is you are now making, we will double your salary-for openers, by way of negotiation. Let's talk." So we did. And subsequently I spent two of the most fascinating years of my life in the pharmaceutical setting. During the process I set up a program of what we referred to as "personnel development" with the assistance of four Ph.D. industrial psychologists. And, we did a lot of research while we were in the process of establishing the programs. And, it was this research that initiated my thinking about the concept of professional development and how, indeed, it may relate to graduate education.

I propose to offer a premise to you and then to share with you a perspective. The perspective is the model. Then I will give you some of the general implications which I feel the model suggests for the assurance of quality in graduate education.

My premise is basically this: Quality graduate education is characterized by emphasis on professional development. The ultimate criterion for judging the quality of a graduate program is the demonstrated professional competence reflected in the careers of program graduates. This relates to Al Krebs' comment this afternoon, which I thought was an especially good one, about the concept of reincarnation and coming back and having to

study under one of your own doctoral students. The perspective I would like to suggest for this evening is that: Useful insights about improving the quality of graduate education can be gained by viewing the graduate experience from the perspective of what is now known of professional development. And I think it is important that I add here, very quickly, that there are many perspectives from which the graduate education experience can be viewed. You can view it from the standpoint of administrative efficiency, from the standpoint of societal need, from the standpoint of change that occurs in students, as well as from many, many other perspectives. This is only one that I purpose may be useful for us this evening. And, again, I emphasize the fact that perspective varies from one point of view to another.

As we examine development - professional development - I purpose that there are three basic dimensions to it: first of all, "change;" second, "content;" and third, "individuality." Change is basic to development because unless the behavior that a person reflects, displays, or is capable of demonstrating, is different than it was prior to the point when development was to occur, then no development has occurred. Content is involved because it is not possible to develop in general or to change in general - it must be with respect to some subject matter content or some focus in our environment. Individuality must be considered because adult learning (as is true of all learning for that matter), is a matter of individual intellectual characteristics and non-intellectual characteristics and their interaction.

I have defined three levels of change in my approach to try to communicate the idea that the change that we are talking about here is not simply an increase in size, for example, or without particular direction.

It must be change of a certain kind for development to have taken place. I postulate that the first level of change is "perceptualization," i.e., the process or state of acquiring information, simply knowing the facts. The second level - to which the individual moves in development - is "conceptualization." At this level it is the process of seeing relationships of facts and principles to each other, to the individual's self-concept, and to the situation or kinds of problems on which these relationships will be brought to bear. This, in contrast to the first level of simple "knowing," is a level of relating. Perhaps this is best illustrated by the fact that in 1890 Karl Pearson wrote The Grammar of Science, and he defined science as "the study of the relationships among facts" and said that obviously science could never constrain itself to the first level of simple information. It had to involve relationships, principles, hypotheses, theoretical concepts. The third level of change is one that I call "generalization" - the process of extending one's knowledge and skills to include application in situations other than the one in which they are acquired. This is a form of applying. Once the individual knows the facts and relates them to new situations, is the kind of change I am talking about in this dimension of development in the model.

The next aspect of the model, or dimension of the model, is individuality. Here I am concerned with intellectual, as well as non-intellectual, dimensions or characteristics of an individual. Every person brings to each new situation, or each situation in which learning occurs, certain abilities, certain knowledge, certain past experiences, and certain skills. This person also brings attitudes, interests, values, motivational characteristics, that go to make up the non-intellectual aspects of individuality.

And both intellectual and non-intellectual characteristics are brought to bear in the development process.

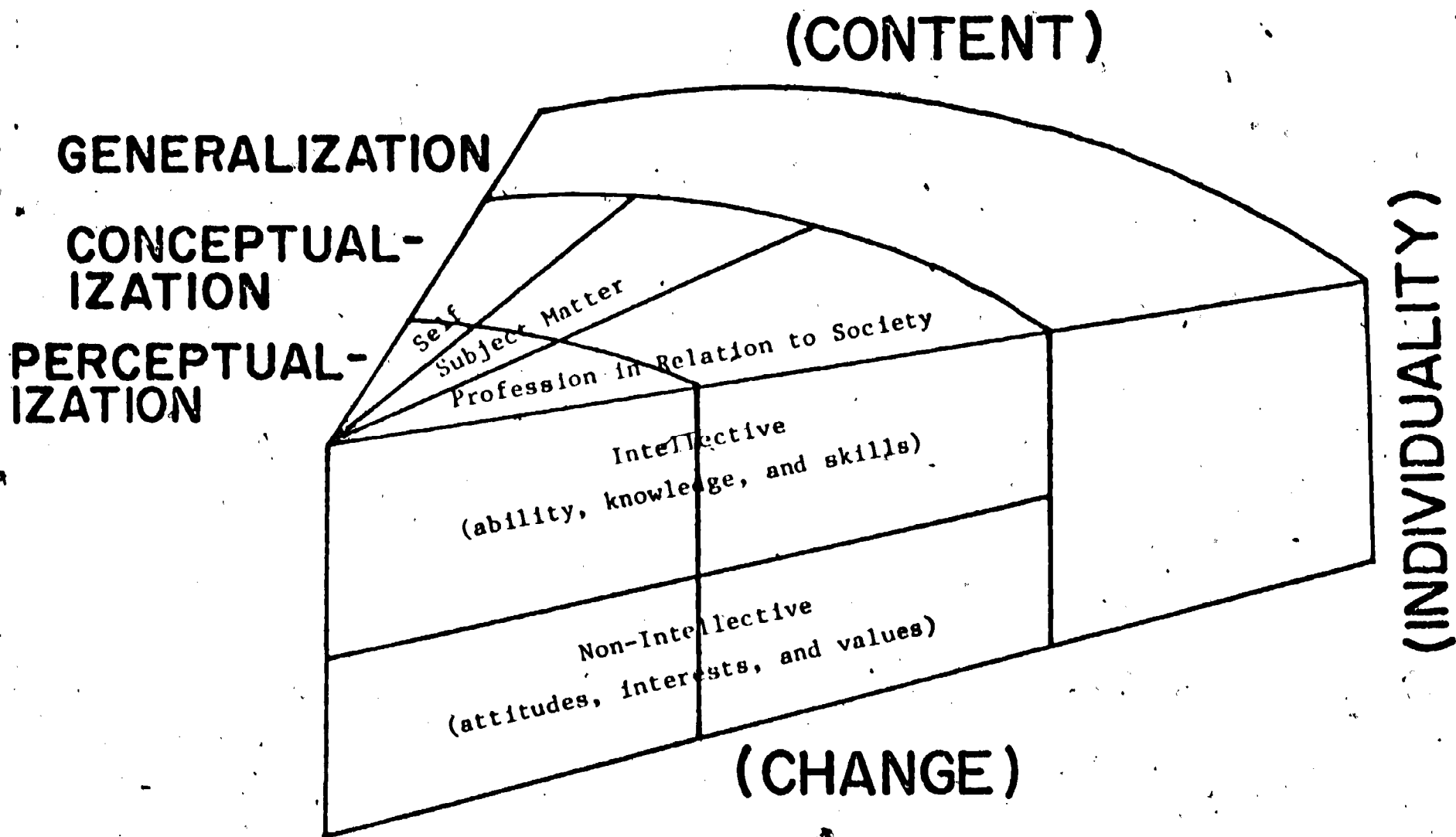
Now let us consider the components of the third dimension of development - content. In development, one key component of content is self - understanding of one's self, relating oneself and self-concept to subject matter, to situations, to applications. The second component to content is the subject matter itself. The third component of content is the concept of society.

It seems to me that it is not possible to have ultimate development without the individual's ability to relate himself or herself to the overall society of which the individual is a part. The individual must be able to relate to the job, to the organization, to the profession, to the society. Thus, the three components of content.

Now, when I first started my study - for the first several years - I concluded that there should really be three aspects of individuality - ability, knowledge, and skills (skills being the power of the individual to manipulate situations - whether we are concerned with mechanical type skills, or communications skills or, how to use a fork to eat starfish). There are specific kinds of things that will assist in a given situation, but I have since combined skills and knowledge into the single "intellectual" area.

Let's look at how I have attempted to put together these concepts (overhead). (See "The Model" on next page). Then we will consider vocational education graduate study. On the vertical dimension is individuality. This (horizontal) dimension is the change dimension. This (rounded) dimension is the content dimension. And I postulate that development occurs as the

THE MODEL



C. O. Neidt
July 28, 1978

individual moves from the level of perceptualization to conceptualization to generalization. It is important that there is a sequence and, if we are going to plan experiences for an individual, we must not attempt to start at a level beyond which the individual has yet to go. We must not be in a position of skipping any part of the sequence. In relation to content, I postulate that the basic element in development is knowledge of self. And then I postulate that there exists the ability to relate the self to other kinds of situations, or relate interests and abilities known about the self to vocational choice, to job selection, to opportunities, to professional leadership roles, etc. Effective behavior occurs when the individual understands or receives information about self, relates the information about self to other situations - surrounding situations - and acts accordingly. The second area in the case of the management study, was work - the job itself, requirements for successful performance on the job, the expectations involved in the job, the idiosyncracies of the individual's supervisor in the work hierarchy, all coming into play. But, you start with knowledge about the job itself, then relate to the individual performing (planning) the work, interacting, relating to the company, relating to the supervisor, relating the individual's department to other departments in the organization. Then, lastly is the broader context of society, outside the work situation, the relationship of the various governmental obligations, the units of society, and their interrelation to society and to each other.

In a moment I will give you the modification of the model for graduate study and you will see that I have put in here profession in relation to society. I believe it is important for an individual, in a developmental kind of situation, to have broadening experiences which allow him or her

to relate to the overall society.

From here we go to the intellectual factors. I probably should mention here that my thinking about intellect has been influenced by the various cognitive taxonomies that have been developed. You will recall Bloom's Cognitive Taxonomy. I am talking about the intellectual dimension of behavior in the same sense, and that there are knowledge, achievements, understanding, and abilities in this area that are a function of the central nervous system. So far as the other two areas are concerned, I am talking about attitudes, interests, values and other non-intellectual factors of behavior. In the original work I included non-specific skills in this dimension but have since rejected the category. That came from some studies in marketing where the individual might be a very shy person, not very assertive at all, but because that person had picked up some skills in dealing with prospective customers and closing sales, etc., the individual could be relatively successful even though it was not an especially good fit in terms of the other characteristics of the individual.

I postulate that when development has occurred, there will exist a blending of all three aspects to form generalization. I postulate that an individual should be able to bring to bear all the intellectual and non-intellectual, the skill aspects, all the interrelationships of self, work, and society, subject matter and of profession, into the kind of performance that Maslow would describe as self-actualization. And that it is not possible, nor should we attempt to separate the various components of development at the very highest level toward which we are aiming. (Distributed copies of model at this point.)

You will notice that I have included in the intellectual factors

ability, knowledge, and skills on the assumption that these are related to the central nervous system, the non-intellective split out as attitudes, values, satisfactions, coming from the parasympathetic nervous system. I now prefer to go with that rather than having a whole set of factors called "skills," because I haven't been able to identify or validate the existence of skill in all the other aspects of the model cutting across as it does. So, we are talking about thirteen cells which I am attempting to validate.

Now, what about all this in relation to graduate education? Keeping the model close by, if indeed the kinds of things that I postulate are truth, then I think we can ask ourselves, "What does this mean so far as quality in graduate education is concerned?" It seems that point number one is a relatively obvious one. It is critical to tailor the graduate program to the individual's initial level of competency. We must begin where the individual is. We must recognize that individuals, even though both or all have outstanding potential, will come to us with different background experiences, different levels at which they can demonstrate competencies, and the importance of the individual program cannot be overemphasized. This fits very well also the individuality dimension of the model.

My second implication is: It is essential to include professional internships and practice for a complete program to assure that generalization and application take place. A quality program must include both in-class and out-of-class activities. And this comes from reviewing the sequence of change. I am saying that development is not complete until there is the application of knowledge in a situation where all aspects of the total person are brought to bear on the application of subject matter, and this is

virtually impossible to do in many subject matter areas within a classroom and within or on a particular campus.

Third, there must be continuous feedback from systematic evaluation of the student's performance in a quality graduate program - assessment centers, comprehensive evaluations, etc. A comprehensive evaluation - not necessarily written, not necessarily assembled, but a constant evaluation of feedback to the individual so that the person can move from the perceptualization to the generalization level. Unless the individual can identify strengths to be reinforced, areas of inadequacies to be overcome accurately and objectively and continuously, then development will be slowed considerably.

Fourth, the graduate student should be exposed to other professionals-in-training so as to be able to contrast attitudes, values, and interests of various types of students. Here, although I think that you could be doing very, very well in terms of identifying coursework within departments, I would like to suggest that in most vocational education departments with which I am familiar there could be a greater reaching out. Some of your better students seem to be doing it on their own but I would like to see more enrollment in other kinds of courses, more exposure in a broader sense.

Fifth, if true self-actualization (ultimate development) is to be achieved, all aspects of the individual's development should be considered in graduate programs, not simply course work. Likewise, I think most of us who work at the graduate level have done a pretty good job of coming up with a list of 27 courses or 23 courses or however many courses go on the formal program that is filed in the graduate office. But, we probably haven't done as well at taking a look at experiences and defining experiences in

this area - experiences that would relate to the profession, exposing our graduate students to others who are very active in the profession.) We should be considering the likes, the dislikes, the interests, the values - it seems to me that these are kinds of legitimate concerns for graduate committees with which to deal.

Sixth, by learning his or her strengths and areas needing improvement, the student builds a career-long professional point of view. This is another way of saying that the graduate experience is an encapsulated segment of an overall career. One of the reasons why I am inclined to feel that concepts of professional development do apply to graduate education is that graduate education is simply a segment of career development. It is a carefully defined experience so that it can be efficient in terms of the change in behavior that takes place. The true professional, it seems to me, develops throughout his or her entire career and this is the secret of having competent, up-to-date, highly professional faculty members, because they have started early in their careers to keep abreast of the changes, of defining programs of development for themselves. The time to start this sort of thing is in the graduate education experience.

Seventh, since all development is self-development, the student should play a major role in defining his or her own program. This is another way of saying that it is not possible for an individual to say, "Here I am. Develop me." Development has to be based upon the individual's motivation. It's probably a repetition of the assertion that motivation is the sine qua non of learning.

Eighth, the student's advisor should assist the student in providing opportunity for development; the department should provide resources and settings. Earlier today we heard that the college, a higher level of the

organizational structure than the department, and ultimately the university also have a responsibility to participate in development. To the extent to which this responsibility is not defined and supported at every level as part of the mission, then, in my judgment, the mission statement should be changed.

Ninth, the faculty of a department should continuously share their professional points of view with students so as to provide different professional models with whom the students can relate. I personally like to see exposure to a lot of different kinds of professional individuals in a graduate program. I don't like to see faculties all of the same carbon copy. It doesn't bother me at all to find certain individuals on the faculty that are somewhat idiosyncratic or who may be at philosophical points of disagreement with other members of the faculty. I think it is good for students to be exposed to this and to hear the debates between the quantitative statistician and the non-quantitative researcher. That doesn't bother me at all because I believe that it is from such exposure that the individual can get insights of a non-intellective nature regarding self, regarding profession, and certainly regarding subject matter and the approach to subject matter.

Tenth, ultimate professional development requires acceptance on a colleague-to-colleague basis rather than student-professor only. It seems to me that as an individual approaches the end of the graduate education experience, that individual should be recognized as a colleague in the profession, rather than continually as a student. I like to see graduate experiences in which the student and the advisor undertake a joint project independent of the person's thesis, whether it is the publication of an article, whether it is an evaluation of a school situation, or a review of

an accreditation type of visitation. Before the individual leaves a department, I believe that the individual should have an opportunity to function at the level of faculty in that department.

Eleventh, some opportunities which permit the student to relate the graduate experience to the profession and to the overall society are desirable -- international issues, etc. The broader the exposure provided, in my judgement, the better. This includes encouraging students to attend professional meetings while they are graduate students, not simply attending conventions to look for job placement. Even before job placement time, I consider conventions a very important part of graduate education and this relates closely to the model. Such activities moves the individual toward the generalization so far as the relation of profession to society is concerned.

Twelfth, a diagnostic examination to identify the level of competency of the individual entering a program is helpful in identifying not only the level of the student's competency, but strengths and areas needing improvement. Such an examination need not be written or "assembled." Materials that the individual has produced and a review and evaluation of the individual in the job setting before entering the graduate education program, are both seen as highly desirable because the more insight the faculty members can have about the person and can feed this back to that student, the more likely it will be that development will occur.

Thirteenth, a graduate program should include opportunities for students to associate with professional groups through conventions, workshops, and institutes.

Fourteenth, since quality graduate work involves both intellectual

as well as non-intellective aspects of behavior, and since the pattern of modification of these aspects is different, separate records of progress should be maintained in the initial stages of a graduate program. That's a long and complicated assertion. It probably comes, as much as anything, from some of the learning theorists. What I am referring to there is this: in general, most of the learning curves for intellective-type experiences have a plateau related to transfer, change of methodology, comprehension, etc. But, when we are dealing with the non-intellective area, most of the learning curves show a long period of little or no change and then, when change does occur, it comes quite rapidly. For example, let us suppose we are trying to get across to graduate student an appreciation of the role of research in their professional careers. Too often we graduate them with great disgust or dislike for research because we have not started slowly and built up the appreciation over a period of time. The chances are you may have experienced that kind of thing yourself. I'm advocating that we assume responsibility for dealing with the non-intellective factors just as we have assumed responsibility for dealing with the intellective factors.

Fifteenth, quality graduate education includes providing a physical setting for interaction among emerging professions. And, if we are to have the individual relate his or her self-concept to others, we do need to provide a physical setting and an identifiable place to interact.

Sixteenth, quality graduate education includes providing organizational and social interaction among emerging and mature professionals so as to provide visible identification with the profession involved. There should be, not only opportunities for leadership at the student level but, opportunities to interact continuously with the more mature faculty.

Seventeenth, although selectivity to programs will prevail at the

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lower end of the spectrum of ability, a quality graduate program should accommodate individuals at even the most advanced state of development.

I have heard it argued from time to time that an individual may have been too good for a particular program or an individual may have gone beyond the level of what a program can provide. I don't accept that. If a program is tailor-made, if there is individuality, I believe that a given program should be able to accommodate an individual at a very advanced level.

Eighteenth, a quality graduate program is one characterized by emphasis on the professional development of faculty and administration as well as of student participants. This is the point that Al (Krebs) made this afternoon. I believe that graduate education occurs best when we consider ourselves as being part of a community of scholars and all scholars in that community do have a responsibility for professional development. It is an important part of faculty considerations just as it is an important part of graduate education.

Nineteenth, just as graduate programs must be individualized, so must departments of Vocational Education -- on a foundation of core subject matter and faculty expertise should be pinnacles of uniqueness and excellence I don't think it is possible for all departments to be all things to all people. I think it is essential for a department, just as it is essential for a university, to do some soul-searching as to what its mission and role should be. Yes, indeed, we need the solid foundation of subject matter exposure. We need solid programs. But, within each department we should strive to develop certain pinnacles of excellence that will differentiate one department from another. And we should make judgments accordingly in

terms of resources, in terms of selection of staff, in terms of commitments, in terms of curriculum, building around those pinnacles of excellence. I believe that survival and emergence of excellence overall for departments are related to this concept.

Twentieth, quality graduate programs emphasize the flexibility that will permit building individual programs which are designed to enhance strengths and overcome deficiency in student competency profiles. This is taking us right back almost to where we were with number 1 - that we do have an obligation to individualize our programs and, certainly, part of that individuality, that individualization, involves non-intellective factors as well as intellective factors. It involves relationships; it involves application.

DIMENSIONS OF QUALITY

The Student's View - Panel of Doctoral
Students, Leadership Development Pro-
gram, Colorado State University

Sandra Crabtree
Richard Feller
Jack Smith

Richard Feller
Sandra Crabtree
Jack Smith

Student's Panel

(Summary of Key Points Made)

Sandra Crabtree - Some things I looked at when considering an institution in which to do doctoral work:

- . A foundation in vocational education
- . Advanced work in my service area
- . Faculty - where from
- . Graduate study opportunities during the summer
- . Program to meet my future goals
- . Program that I felt I could fit in
- . Were they graduating their students?
- . Environment conducive to graduate study

Some things I would look at now:

- . All of the above, plus
- . Faculty with adequate time to supervise my program
- . Does curriculum provide both foundation courses and experiences growing out of them?
- . Some kind of a shadow program (shadow my major advisor in her activities)
- . Opportunity to work with graduate students outside of my major area
- . Adequate research library
- . Graduate policies clearly defined and realistic
- . One with Leadership Development core to it
- . One that would help me explore other options

Richard Feller -

- . I think facilities are very important
- . What is the quality of the people with whom you are working?
- . Faculty willing to take risks and try new things
- . Students willing to challenge things
- . Students in program who are different from me
- . Faculty who challenge me and encourage me to look beyond the obvious
- . Are the faculty good models?
- . How were graduate students recruited?
- . Do the faculty differ from each other?
- . Do the faculty argue with each other?
- . Are the faculty still learning, and are you involved in their learning?
- . What are the faculty like as people?
- . Does the faculty make me think?

Jack Smith

- . The curriculum should be fitted to the students
- . The advisor and advisee should have a personal kind of relationship
- . The advisor should be involved in the evaluation of the student's goals
- . There should be more field-based practical experiences
- . A variety of experiences in internships, practica, etc. should be provided

DIMENSIONS OF QUALITY

The Professor's View - Panel of University
Deans and Professors in Leadership
Development Programs

Dr. Carl J. Dolce, Dean of the School of Education
North Carolina State University

Dr. Frederick Cyphert, Dean of the College of Education
The Ohio State University

Dr. Gordon I. Swanson, Professor of Vocational Education
The University of Minnesota

DIMENSIONS OF QUALITY

Carl J. Dolce

Dean, School of Education, North Carolina State University

In terms of the theme for this conference I see three factors: (1) the dimensions factor; (2) the content area of vocational education; and (3) concepts of quality. I will not discuss the content area of vocational education, however, that ought to be a major item on the agenda of the University Council for Vocational Education - to develop a position paper to aid the field in developing a clearer definition of itself.

I will say a few words briefly about dimensions. Al Krebs gave four, and I would like to comment first about his priority order. I think that it was a mistake for Al to list faculty as number 3, because I would put quality of the faculty as first and foremost in the listing of dimensions. It is the quality of the faculty which will affect the quality of the students and which will affect the quality of the program. I would like to add two more dimensions which were not really discussed by Al but which were alluded to by students and by others. A fifth dimension I would add is that of interaction. You have the faculty and you have the students and then there is the interactive quality which must occur in a graduate program, in my judgment. And a sixth factor (which is much more nebulous) is the gestalt, the climate, or the organizational personality of a particular department or a particular institution. Although nebulous I think it is as real as the other factors that we have talked about.

I think that an outlining of the dimensions, while fundamental and important, really is the easiest part of the entire job. It seems to me that a much more difficult and a much more fundamental problem that we have in discussing the quality of graduate programs in vocational education is the need to look at the sense of quality. I am going to use an analogy here to illustrate my

point. One can outline the things that are important in quality. Let's take the matter of baseball. One can talk about batting averages and proficiency in batting and capabilities in pitching. One can talk about the importance of fielding, the importance of catching, and all of those elements, and one can outline those. Such dimensions, or elements, are valid whether one is talking about sandlot baseball or whether one is talking about major league baseball. Our real problem is to determine what is our frame of reference. Is our frame of reference, in a sense, the sandlot league? Or, is our frame of reference (as we give qualitative input into these various dimensions) that of the major leagues? It seems to me that this involves, first of all, a sense of quality which is held by the faculty and, secondly, the use of this sense of quality in making evaluative judgments.

Quality is like a sense of taste in music or a sense of style in living or a sense of fineness in great literature. It's not solely rational, and is the product of both osmosis and socialization. And that is why individuals who have attended a first rate program at a first-rate institution tend to have qualitative senses which are substantively different from those expressed by people who have attended mediocre programs in mediocre institutions. What is judged to be high quality in one context is really low quality in another context. And that is the heart of our problem.

Examples: The dimension of student quality: what does one look for? We have outlined the dimension but how does one make the qualitative judgment? There are some faculties who prefer not to look at GRE scores at all, and who seem to view those as extraneous, some who find quality in the 900 to 1050 range and who think that the top of the world has been attained when a student applies who has an 1100 combined GRE score. Some faculties are impressed by a 3.5 gpa. in

masters program from an institution where a 3.5 gpa. has been earned by 75% of the students who complete the program, or an undergraduate gpa. of 3.0 on a 4.0 point scale in these days of grade inflation, or reviewing writing that is acceptable but clearly pedestrian when viewed against writing which is of a qualitative nature.

Similar comments can be made about the quality of faculty. How does one judge this dimension? To some, the publication of three pedestrian descriptive articles in outlets which are not selective in what is published in those journals is a qualitative element. To others, such a publication record is what one would expect from a first year assistant professor.

Or, in research, to some a survey study in which responses are tabulated and statistically manipulated is regarded as research. And to others such studies are pedestrian and qualify only as an entry level type of research.

To stop at the listing of dimensions of quality is to stop short, in my judgment, of the heart of the problem.

In my remaining time I would just like to give you some one shot observations that I won't develop in this discussion.

First observation: to the extent that the student's view is valid, i.e. what occurs in class is extraneous to the real world, that is the extent to which those particular courses suffer in a qualitative way.

Second observation: a mediocre faculty will tend to reproduce itself and either fail to recognize or be antagonistic to quality.

A third observation: administrators share the guilt for low quality programs to the extent that they have an influence on faculty hiring and student admissions.

A fourth observation: an organization cannot achieve quality status in one step, but must take a series of steps over a long time period. There is no way for a mediocre department to attract a first rate faculty. Salary will not do

it nor will the simple physical environment or working conditions.

A fifth observation: professional training is a process of socialization as well as cognitive development. It seems to me, that discussions about interaction between faculty and students and the importance of residency all point to the importance of professional and graduate training. Such training is, in fact, a socialization process, and is not simply an imparting of cognitive skills. This is not to say that the cognitive skills area is unimportant, but as Dr. Neidt pointed out, there is more to graduate education which, in my judgment, has to be intensely personal in the interaction between faculty and students.

A sixth observation: only first rate institutions or programs can afford risk-taking - and then only in limited amounts. Mediocre programs which emphasize risk-taking are simply fulfilling their own prophecy, it seems to me, in moving down the path of mediocrity in a continuous fashion.

If the going gets too rough, we can rely on one very cynical viewpoint: graduate programs can perform a qualitative function if (a) the programs don't hurt the students, if (b) they admit only highly qualified students, and (c) if they legitimize only highly qualified graduates.

SOME THOUGHTS CONCERNING INDICATORS
OF QUALITY IN GRADUATE EDUCATION

Frederick R. Cyphert
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The Ohio State University

If we look historically at graduate education, there have been a number of reputational assessments that have pointed out who is good and who isn't good. I'm not going to review those for you. It seems to me they are essentially subjective, they are essentially value judgments, they are ratings done by those who propose that they know. Quality is primarily a matter of what a particular academic field at any given time recognizes as such. I think that these reputational studies have assumed a great deal of weight. People have looked at them in terms of choosing programs, whether one chooses them as a faculty member or as a student. I think they have been oriented toward defining excellence as whatever deepens understanding and contributes to knowledge. That is, perhaps, a bit different from a pragmatic, practical definition which attributes excellence to whatever works. This utilitarian view probably is more evident in society than is the academic view.

As we have heard today, there are many objective or qualitative criteria that are used: the number of books produced by faculty, the professional qualifications of the faculty, the depth and breadth of the coursework, the successful placement of the students, the number of books in the library, etc. You could say many things about these kinds of criteria. They are quantifiable but, basically, they are still subjective. At what point does the number of publications become excellent as opposed to fair? We would easily start a debate on that type of question.

These criteria inevitably consider process or programs but not product. We still don't know whether the graduates from a program rated high are better than those who graduate from a program that isn't rated high, but they certainly have the halo effect as ~~they~~ benefit if their program has been rated high. Perhaps they succeed because it is a self-fulfilling prophecy. We don't even know if they succeed. Many of these criteria are really secondary indicators. For example, the number of articles published is used as evidence of scholarly research and I think all of us know that number is not equivalent to value of impact.

There are also other kinds of indicators of quality that have largely been promulgated through the vehicle of accrediting associations: strong institutional commitment to academic freedom; certain kinds of governance structures that provide faculty-student participation in policy-making; sound balance between theory, research, and practice; encouragement of professional growth and development on the part of faculty; logical sequence of courses; balance between curricular specialization and breadth; innovation and creativity in designing learning experiences; a series of non-quality standards generally centering around cost-effectiveness. Obviously, from an administrator's point of view, when two programs are equal qualitatively and if one is cheaper than the other, the less expensive is better by definition.

Much of the dilemma centers around what we mean by excellence, and obviously, within education we don't have any universal definition and society's definitions are even more diverse. I think frequently, academic standards--those things we tend to think are good--are generally irrelevant to the public.

I also want to comment that academic tradition in many ways inhibits

careful assessments of quality when that evaluation or assessment is viewed as impinging upon academic freedom. There are limits to the kinds of questions or to the evidence you can gather, merely because you are suddenly butting into a professor's business and he believes he has the freedom to do what he wants to do. He may believe that the evidence you gather constrains his freedom.

Something that I think is relevant to this whole question of determining quality is the growing tendency among graduate schools to differentiate between graduate programs and professional programs. They are saying that a graduate degree is seen as concentrating on scholarship and research in a discipline and that a professional degree is intended to prepare a student for professional practice on a job. I would venture to think that most of us believe our programs are doing both of these. I suspect that these positions are points on a continuum. It seems to me that any place you separate them is rather arbitrary, but graduate schools are going to divide them and your programs and mine are going to be categorized as one or the other, I am quite sure. I think if we haven't worried about that question we should, because it is going to have a pronounced impact on where our programs come out on some of the value hierarchies.

There are those who would contend we should not be deluded by these traditional measures of quality such as the number of books in the library or the quality of faculty--that we have used such criteria only because we don't have anything else that we can measure. By and large I tend to come down on that particular side of the fence. Clearly, we haven't looked at the educational impact of our programs as the major indicator of quality. We have concerned ourselves with process and with accouterments rather than with product. I think that the ultimate criterion for judging any program

is whether it produces graduates who perform effectively. I think the reason we haven't worried much about product performance is not because it is undesirable, but because of the feasibility problems in measuring performance.

We obviously have several alternatives. One, we can continue to accept the kinds of quality indicators that we have accepted in the past. Perhaps we can attempt to say we at least need to validate criteria against student performance, even if we aren't willing to go so far as to put all our eggs in the basket of "what our graduates do really tells us whether the programs perform or not."

Wells Foshay tells a story that seems to me is relevant. Somebody asked Wells, after he had traveled all over the world studying how mathematics is taught, what he had learned. Wells said he had learned that schools were organized differently all over the world. They don't organize in Japan the way they do in Brazil. "But," he said, "I found out that school organization didn't make any difference in how much math the students learned. So the first major item I learned was that there are many factors in any learning situation that are irrelevant." I studied the difference between the 8-4 and the 6-3-3 forms of organization in my graduate program, and now I learn that organization makes no difference. He said the second thing he found was that all over the world bright students learned more than children that weren't so bright. This was just as true in Italy as it was in Australia. Student intelligence is a very relevant variable. But I also know that it is non-manipulatable. There wasn't much I could do about it unless I happened to be the parent of those kids. A third principle I learned was that all over the world, the more time you spend studying something, the more you learn about it. Time devoted to a topic is both very relevant and very manipula-

table. And so, Dr. Foshay says, "anytime you look at an educational situation you should determine what is irrelevant and disregard those factors, you should ascertain what is relevant but not manipulatable and accept those factors, and you decide what is both relevant and manipulatable and concentrate your efforts on those items." I give myself that lecture about three times a week because I find I spend too much of my time on the irrelevant as well as the non-manipulatable.

I do feel that this Conference thus far has not worried about whether something that was assumed as relevant and manipulatable or not. And we've talked about doing some things that I'm sure you don't have the budget to undertake. That behavior, in a way, I find, increases frustration rather than progress.

It seems to me that we ought to move in the direction of being able to describe the behaviors that are exhibited by those who graduate from our programs. If we are going to do that, we have to think of at least three things--one of which is the kinds of conditions that have to exist with the program before you can measure graduate behavior. For example, I contend that the program has to have some cohesion to it. Good programs cannot be individualized to the point that there is no recognizable program qua program as this differs from individual tracks through a recognizable program. There has to be institutional impact if you are going to measure student output that is program attributable. Obviously also, goals must be in measurable terms. These goals have to be acceptable to somebody. They must be acceptable to the scholars in the field, or to students, or to consumers (the public), or to some combination of these elements. And I think frequently we have not given the time we ought to give to asking "who are we trying to

please with the program we are putting together?" We must also have such things as the necessary tools, instruments, examinations, and resources. If one is going to examine what happens to graduates--how they perform--and is going to do much of the assessing in situ, obviously, it takes lots of money. There also has to be the necessary social conditions. There are many graduates who do not like an institution probing their performance their first year on the job. And there are many employers who don't appreciate colleges ascertaining whether or not their employees are performing on the job. There are social constraints.

A second thing that one has to do is to delineate clearly what performance expectations one has for the graduates of a program. I could name a thousand and one possible objectives and so could you. The task is to spell out behaviors in such a way that program content becomes obvious. However frequently we deal with behaviors at an abstract level that curriculum is only vaguely determined. Let's assume that we want to develop inquirers. Does that mean that students should have mastered the Delphi Technique? I think we have to know the answer to that question before we can develop behavior measures. Does being an inquirer mean that a student ought to be able to construct a questionnaire? Does it mean that a graduate ought to be able to recognize a researchable problem when he/she sees one? We have to get our curriculum planning considerably more specific. And we have to give thought to the question, what are the means by which one might begin to gather data or evidence relative to student performance? We are going to be dealing with employers of graduates, with students of graduates, with the graduates themselves, with the peers of graduates. We may be doing such things as videotaping graduates' teaching after they have been out three

years in order to determine if they are able to raise their students' thinking from one conceptual level to a higher conceptual level; assuming that was one of the things we thought it important for them to learn while they were a part of our graduate program.

It seems to me that we are going to be doing many of the same things with our graduate programs in the near future, that we now are doing with our undergraduate programs. At Ohio State we have two full-time equivalent faculty members assigned to follow-up our undergraduates and gather data about the extent to which what they are doing is what we wanted them to do when they graduated from our program. We modify our undergraduate programs according to what these evaluators find. We don't do any comparable assessing of our graduate programs. Our graduate program is obviously much more "holy" and faculty are reticent to structure it so that evaluations can be undertaken.

If I had the time I would make a few remarks about intermediate steps in arriving at graduate performance measures. I think one of the reasons that we don't move more rapidly in this direction is that when we see where we are and also see where we would like to be, we become overwhelmed by the resulting discrepancy. And so we don't start on those intermediate steps to success. I hope that we will soon accept the notion that the ultimate criterion for judging any program is how its graduates perform. There appears to be no better time to start than now!

VIEWS ON QUALITY

Gordon I. Swanson, Professor, University of Minnesota

During the academic year ending in June 1977, 133 institutions in the United States awarded 4,959 graduate degrees in some aspect of vocational education. It included 4,324 masters degrees, 167 specialists degrees, 232 Ed.D's and 236 Ph.D's. This should tell us something. We have so much proliferation in graduate degrees that we have difficulty addressing the overall question of quality. It is necessary to find some kind of machinery to address it.

Part of the reason is that public resources are distributed, indeed spread around, to insure such proliferation. It is the special obligation of the profession to confront the problem in some way. Part of it, I think, is related to the failure to distinguish between inservice education and inquiry-oriented graduate degree work. Many institutions do inservice training and, because they have some available faculty, they launch an effort to justify an inquiry-oriented advanced degree.

This organization, the University Council for Vocational Education, has a primary responsibility to focus on quality - not only in terms of individual degrees but also in terms of the proliferation of institutions claiming the capacity to award graduate degrees. It is entirely probable that this field is ready for its own Flexner Report which, as you know, revolutionized the field of medicine as early as 1903. Some organization should be addressing this question.

The dimensions of quality that have been discussed here in the last two days are dimensions which we can all agree upon. We have discussed degrees which are offered within the framework of universities and within the framework of what we often call a learning community. But many more degrees are offered by institutions modeled after a supermarket, a parking lot or a package delivery

service. One wonders where it will all lead.

It seems to me that we do have problems and questions of establishing models which promise to break out of the primitive and comfortable models of the past. It is not easy in closed models to have very great effect on quality. But, nonetheless it is important and one has to address it.

I'd like you to give some attention to a workshop which was held just a year ago on graduate education which gave attention to some of the things mentioned here today. If I were to summarize the commentary, I would emphasize three points of agreement: (1) that to have a qualitative program it is necessary to have a high level of institutional commitment. Institutional commitment is related, in turn, to any interpretation of a strong relationship between vocational program and the public interest and in the long run, to the search for fund sources from whatever source. Strong programs are found in institutions where institutional commitment is high, and where faculty are genuinely interested in building that commitment.

Secondly, a focus on inquiry is essential, not only in the methodology of inquiry but also an expanded scope.

Third, there was agreement on the need to reexamine substance. What should it be? The field of vocational education has had a tendency to rely on the processes of assembly as though an array of interchangeable parts, many borrowed from other fields, are sufficient. Vocational Education has been offering itself as one of the bridges between school and work or between youth and work. It is well known that the bridge is in bad repair. It is disintegrating at the ends while carrying a bigger and bigger load. At the front end, it has been resting heavily on approaches to guidance and clarification of self-concept. The far end of the bridge has been resting heavily on placement. The middle is left untended. Meanwhile, new bridges are being created; vocational

education is one of many, yet there is very little new knowledge emerging for the design or utilization of bridges between education and work.

It may be necessary for research to go beyond the traditional kinds of inquiry. It may be desirable for vocational education to engage in some large scale experiments or to seek other ways to shed light on the complexities which surround the allocation of human resources to the work of a society.

Question and Answer Session

Question to Dean Dolce: Let's assume there is a close relationship between what you describe as a framework of quality and the gestalt that the department operates within, and that, all of a sudden, you find yourself transported in time and space to a place as a Dean where the Department of Vocational Education represents what can be described as mediocre in quality, what kind of things do you do as a Dean and/or encourage the administration and staff of that Department that you would consider to be, as Dr. Cyphert has referred to, as manipulatable relevant issues to bring about to change toward what we would describe as a quality program at the graduate level?

Dean Dolce: A lot of things would depend upon the particular institution and its policies and what prerogatives Deans have or don't have in that institution. First of all, I would take a long time frame. There is no way to turn a mediocre department into a first rate department in five years, to be very blunt about it. I would focus on the quality of the faculty with the very modest goal that each new faculty hire was at least one increment higher than the prior one, to the extent that my influence would bear, and I would maintain pressure on student admissions and the quality of those admissions. I think that present faculty might be divided into two kinds of categories even in a mediocre department: (1) those faculty members who have the potential for a grasp of quality (my job as Dean there is to help them grasp that concept), and (2) others who are hopeless. The hopeless faculty members just don't have the potential, and so my strategy would be - those you have to live with, if they have tenure, you isolate their influence insofar as you possibly can, and you

hope that their influence diminishes as you get new hires. I guess I don't see any panacea solution to the problem. The institutional responsibility though, is to provide the resources so that when you go out for new hires, you can get the bright young person with potential who adds that increment of quality.

Question to Dean Dolce: While we are talking about the product that we turn out, I wonder if members of the panel might comment on the kind of product you really see we should be turning out from these kinds of institutions during the next ten years to be able to assure being able to hire the kinds of people you are talking about. What are two or three of the qualities you prefer to see most in the graduates of these programs?

Dean Dolce: Intelligence. A capability for serving as a model in the socialization process into the profession. Research capabilities. A capability of being attuned to the real world and not falling into the trap that some of the students mentioned. If what a professor is doing in class is extraneous to the real world, then no matter how prudent, that professor is not going to be a good professional model. Integrity. Those are the kinds of things I would tend to focus on. And last, but not least, a good substantive knowledge of the field.

Question to Dean Cyphert: Related to this situation is something that Ted said earlier, and if you have not already faced it I suspect every institution will at some point, and that is this so-called dichotomy between a scholar and a professional and the possibility that we will be called upon by graduate schools to differentiate more intensively between those two, what can we expect ahead and is this appropriate direction for our graduate programs to consider? How should we respond to requests by

graduate schools that we move toward differentiating between a Ph. D. as a program to produce scholars and an Ed. D. program or a similar program to produce professionals or should we avoid this dichotomy? What stance should we take as a University Council and how does that relate to quality?

Dean Cyphert: If the institutions represented here are in fact the "cream of the crop" of programs in vocational education, then we ought to clearly say, does that place a set of goals upon us that may be different from the goals it places upon the run-of-the-mill place that may have graduate work in vocational education? And, if it does, then that is what we ought to emphasize. I would guess that too often we haven't really worried about the unique role that we might have to play in providing leadership to the kinds of people. I think this is relevant. I think that graduate schools will try to force us into this dichotomy.

I think, though, that it's a choice between scholarship as it has been defined by Colleges of Arts and Sciences basically and being practitioner-oriented. Most of the professional schools have acted in a way that I would hope we do. Law and the health professions basically have broken out, and that business administration and social work are in the process of breaking out. I'm not sure which way the latter two will go. I think I know which way most of the health professions and law have gone; they are saying rather than serve twin-gods of scholarship and performance, and the two being quite different, they are going to concentrate on what you might call scholarly performance, which is a single god. Scholarship in the Arts and Sciences has always been unrelated to performance and we are saying that you can be both scholarly and a performer; in fact, you may perform in a scholarly fashion. It would seem that is

the way to go. And that all that we have to do is say that dilemma is in your mind, go live with it Mr. Graduate Dean, but our people are going to be both scholarly and people who can do something with that scholarship besides carry it around with them. I think we really make a mistake if we say our people are going to be trained instead of educated so that they can perform a lot of things now they have no way of changing - they don't know the theory or the research underlying why they do what they do.

But I think we would also be wrong if we go in the direction that they would push us and that is, if somebody really can talk a good game, whether he can deliver or not doesn't make a damn.

Question to Dr. Swanson: Since vocational education today is not its own master but responding to a public need, as universities we ought to do something about that. Perhaps Gordon would expand on the idea.

Dr. Swanson: Let me observe that 55% of the work force today is engaged in information generation and transmission. We have gone over the 50% mark. It's likely to increase.

The time is likely to come when we will have professional scholars -- not only the institutionally based scholars. We may have need for them. American industry, in order to sustain an advantage, is likely to be in the position of keeping its advancing technology up-to-date and encouraging the preparation of people to make sure it is up-to-date. If so, then there is even more need for quality in graduate programs and for new designs in graduate programs. Vocational education should always respond to public need, but the response need not always be retrospective, it can be a response which anticipates need.

I hope, in response to an earlier comment, that trying to distinguish

between the professional and the scholarly is not carried too far because I think both categories are engaged in improving the state of the art.

Question to Dr. Swanson: And would you agree, Gordon, that we have not reached the point in vocational education where scholarly pursuit is recognized on the Hill?

Dr. Swanson: It is obvious by merely looking at the list of topics included among requests for proposals published in the Federal Register. The list is less than a good indicator of thoughtfulness about what inquiry requires or what inquiry is needed. It is a bit unfortunate, I think, if the list is taken as an indicator of the need for scholarly performance. It reinforces the need for institutional commitment.

Question to Dr. Swanson: What do we do to change that? How do we effect a change in the profession to accept scholarly work. Scholarly work can be a very significant factor.

Dr. Swanson: Some of it - much of it - must come through institutional commitment. Institutional commitment also means resource commitment. It is not going to come externally.

Question to Dr. Swanson: A number of our institutions historically, still do, receive financial support and work closely with State Departments of Education. And sometimes they try to affect our mission and goals which sometimes are not compatible with quality graduate programs and scholarly inquiry. Do you think it possible in the future to maintain that relationship and that support and still grow with scholarly quality graduate programs?

Dr. Swanson: I believe it necessary to be careful about whether and how much of this is done. To rely too heavily on the State Agency is

to have a dependent relationship. I believe that the initial paper of the University Council spoke to this. I hope that the Council seeks a variety of ways of continuing this discussion. I think that it was an important paper to produce. I believe it is important to engage in kinds of activities that State agencies invite, but it is equally important to differentiate between the mission of a State Agency and the mission of the University.

Question to Dean Dolce: Carl, would you comment on that since you have had some first-hand relationships in looking at that very question.

Dean Dolce: Yes, I think that any institution which depends upon external funds for the maintenance of its graduate programs is vulnerable, and makes a conceptual and strategic mistake. To the extent an institution is dependent on a state department of education to support faculty members who are essential to the operation of a high quality graduate program, that institution does not have within itself the resource base needed. I would offer an index: if an institution has never said "no" to state department money, it ought to reexamine itself. In other words, if anything that is proposed which brings in additional dollars the program is willing to undertake, then that program intrinsically has prostitute status.

I think it is possible on a contractual sort of arrangement for institutions to creatively combine service - not on all fronts - with high quality graduate programs, because I do not see them necessarily as competitive. I see the possibility for performance of service, and, when coupled in a meaningful way with graduate programs, as being very complementary and very essential in one sense to the operation of those programs.

Dean Cyphert: I don't disagree with either of my colleagues. I

would merely add that we, at Ohio State, have taken the general tack that we are going to produce the next generation of people who will be the policy-makers in State Departments of Education and the like. They are damn well going to be well enough educated that they understand they have things that they can do and we have things we can do and that when we work together in certain ways we are both better off. That still doesn't mean I want to be dependent on their money or that kind of thing. But rather than say there are types that go into State Departments and then they are other types, we are going to say that those going into State Departments need to know some things that perhaps many of those that have been going in the past have not known. What I am saying, I think, is very true of our vocational education programs, but it is true of many other of our programs as well.

Question to Dean Dolce: It isn't only money from the State Department that impinges upon the program. We have to have the willingness of them to employ our graduates, the willingness of them to recommend to students that this is an institution which provides the kind of people we need. So they have an external control over the effectiveness of these programs. That's a very difficult question with which to deal.

Dean Dolce: Let me respond to that in the sense that if one is dependent primarily upon a single state department for the employment of graduates, and if one is dependent upon a single state department to serve as a reference or a recruiting device for its programs, then that says to me a lot about that institution - that it, in fact, does not have access to the things that are important to program integrity. Now, from the strategy point of view, you might have to accept such a condition of

dependency. But that is clearly a short-term move. The ultimate aim of the institution ought to be to get out from under that type of condition because, no matter how intelligent the graduates of an institution are, you might have somebody in that state who is a graduate of an institution in another state who is going to effect those decisions.

Dean Cyphert: Our building of programs to prepare people to work in policy making areas in vocational education is not related to Ohio. We are interested in these people in major school systems around the country. Most of our programs have not aimed specifically at making people able to fulfill those kinds of jobs very well and that if we can upgrade that strata of the society with which we deal, then vocational education and many other facets of education will be better off.

Question to Panel: I would like to shift the focus a little. It strikes me that much of the conversation has been directed toward the means toward quality and not necessarily at quality itself. That is, the dimensions of quality are somewhere classifying means toward ends. The fact that you can identify roles of the field is another way of saying, "Here is a general focus." But, the heart of the qualitative question, it seems to me, are the standards which one looks at when one says, "I tried to do this and I did it well," or "I did it poorly." And that has to do with levels of expectations. This is a highly intangible thing. And the only focus that I have been able to get, is that when somebody says they are satisfied with their performance, we're in trouble. When a faculty member thinks he is doing very well, when you can't critique someone else's performance, when graduate students leave and think they know it, we're in

trouble.

But, hopefully there are some other ways to get a handle on it. And I think that is the heart of the question. Can you help any?

Dean Dolce: I can help in a negative way. I haven't been able to get a hold on the problem conceptually. But, in a negative way, if all that a faculty has done, is to perform service activities and to perform what I call low-level descriptive research, that does not meet my qualitative standard.

It is difficult to get an answer to the question in terms of graduate admissions, "Why should this student be admitted or should have been admitted?" This is a different question than, "Why should this student not be admitted?" The former question elicits a different answer. And if I see in those students' backgrounds mediocre GRE scores, not that I adhere to a particular cut-off score, mediocre undergraduate scores, mediocre graduate level scores, mediocre narrative statements, in a negative way, all I can say, is, "I see no indication of any kinds of qualitative standards in terms of admission." The only way I can handle it at this point is negatively, which is unfortunate. It's a severe limitation.

Dean Cyphert: I would do precisely what you say. But, I am shaken up by a recent study in medicine, in which doctors with IQ's of 110 were contrasted with doctors with IQ's of over 140. They said, "Okay, what is success?" They measured the amount of money the people made. They attempted to get at some measure of patient satisfaction with their physician. They tried to get at the number of lives saved, etc. It came out that there was no difference between the physician with the 110 IQ and the physician with the IQ of over 140. So, apparently there is some threshold for that.

particular job and 110 is over it and having more than that doesn't make any darn difference. So, at the same time I operate the way Carl does, I think I'm bothered by it more than most people because I don't really know if there is any vitality to the assumptions I make.

Dean Dolce: Let me give a response to that. There is a real difference when one looks at med schools and when one looks at education in general. One difference that is very important is the number of acceptances in the context of the number of applications. So, already at the admissions stage, there is a high degree of selectivity. So, I guess I would throw in, what is the ratio of the acceptances to denials?

Dean Cyphert: I would think our Ph.D. admissions are about as selective as the admissions to medical school.

Dean Dolce: I wish that I could say that at my institution, but I can't.

Question to Panel: My question didn't have to do with just admissions obviously, because I think one could ask the same questions about faculty, diplomas, and everything else. But I think the reason why you still find GRE scores is because you're not satisfied with the criterion measure on those research projects which means you still haven't defined the qualitative measure that you are willing to hang your hat on. So you say, "I've got a gut-level feeling that we still haven't defined the problem yet and I'm going to go with my gut-level feeling." If they haven't defined the problem and the criteria, then what is the quality we're interested in?

Dr. Swanson: I believe that part of our problem of achieving quality is that we rely excessively on the jury system. Vocational educa-

tion is so entrapped by it that we measure much of what we do by them. The Graduate Leadership Program institutions were chosen this year by a jury, the student applicants to the program. Local and state advisory council members in this country are a part of the jury system. Much of program direction is determined by some kind of a jury. And when that jury acts, it is presumed that they have also possessed the knowledge with which to act. We don't do enough to generate the evidence; we merely listen to the juries. And in doing so, we mix means with ends and we substitute action for quality.

Secondly, our end product is often measured by its ability to return to the same system - not by its ability to enter other systems. How many people having completed the doctoral program in vocational education have entered the health manpower planning field? Or the planning fields of other branches of government? A measure of quality may be the extent to which individuals educated in vocational education are able to conceptualize and address human resource problems in other systems.

Question to Dean Cyphert: How do you overcome obsessions of the Graduate School with scholarly measures as opposed to performance?

Dean Cyphert: First of all, Carl gave one clue to it when he said these things occur slowly. And this is going to be even more true when you deal with the Graduate School. I figure that maybe the biggest task I have, and when I run into trouble is when I am not very effective at it, is educating those people outside the college who need to be re-educated so that my college can operate effectively, and that may be the president, or the provost, or the dean of the Graduate School, or whoever it may be. That is one of the tasks. Right now I don't know which way I'm going to opt. . . Medicine opted to get out from under the Graduate School and to become a professional

degree, if you will. I'm not sure they became any less scholarly when they did that. I think they became scholarly in the sense that now they believe a physician ought to be scholarly and that is different from the way someone in a discipline who doesn't have to apply anything is scholarly. I think that law has basically done the same thing. I'm not sure that is what we ought to be because we are less self-contained perhaps than are many professional schools. But that's at least one of the alternatives we're going to have to come to grips with. We either change them or decide they're such a handicap we are going to have to leave. But Carl would caution us not to come at the decision lightly or quickly because it's very serious. I wish I had the answers. Because we have just undergone a year you wouldn't believe - arguing with our graduate faculty where the scholars in the field said we were right, but these scholars who said we were right didn't have a vote. So, what I really am with you is empathetic.

Dean Dolce: I am not willing to buy your premise at this stage because I don't know your particular situation - that in fact your Graduate School is wrong. My own view is that what we're about, in vocational education, is a lot more complex than how to build bridges and how to get to the moon. Those are relatively simple problems compared to what we are about. And I'm not willing to buy that it takes somebody less academically oriented, less intelligent, to be a vocational educator. Our graduates, in turn, are the seeds for the next generation because they are moving into university level posts. So if the Graduate School says to me that there are some standards, it seems to me that the burden rests with me in deviation and it's not on an abstract thing about performance. Because, very frankly, when I look at what is happening in the field, the level of performance is so low that it doesn't take much to be an outstanding performer. So I would

say whatever the requirements are, if its 1000 - 1200 on the GRE, my question is, who is, in fact, really screened out? What evidence do I really have other than this abstract thing about performance or what I'm getting, for example, some local director who allegedly performs in excellent fashion. What does it take for a local director to hold that position? It doesn't take much these days. So I want to know, what is it that one focuses on in terms of performance?

Comment: Some graduate schools think that measures of scholarship automatically reflect performance, and that is wrong. This was what almost destroyed public education - the assumption that what was good for the college bound student was good for all students - that one reflected on the other and I don't think this is exactly true.

Dean Cyphert: You and I would agree there. I want the same degree of scholarship as anybody else, but I want the ability to do something with it in addition to just knowledge. I can't settle just for knowledge and I think the Graduate School is willing to settle for knowledge.

Dean Dolce: But, we have that flexibility. The Graduate School on our campus always sets a minimum floor. It doesn't say that vocational education, or any other program, can't also have a performance requirement. Where I have a problem with that is when we use performance in lieu of academic capability. That's where I really have a basic problem.

Question to the two Deans: I would like to bring the problem a little closer home. We have been discussing the dimensions of quality and how these transcend the schools of education. My concern is, how the dimensions of quality are differentiated within the school of education, how the allocation of funds are differentiated within the school of education, and traditionally, vocational education can be placed as a pay-off. Carl (Dolce)

alluded that if a graduate program of vocational education is not independent now to the State Department of Education it should reconsider its mission. I agree with that. If when I'm coming to you Carl, as a Department Chairman and I'm telling you there are criteria the department has to meet in order to get money, and those criteria are contrary to scholarship of the department, could the College of Education pick up the tab? The answer is "no."

Dean Dolce: In your setting. In our setting, the answer was "yes."

Question to Dean Dolce: But it is the case in a lot of institutions. And the question is, where can we put our emphasis to change the situation that exists and is pervasive of the quality of education within the College of Education?

Dean Dolce: Well, I guess the answer to that question is, that in certain conditions you might not be able to change it and, if you are interested in a quality program, you bail out and you go to an institution that has a greater degree of institutional commitment. It is very clear to me that, in terms of support of all graduate programs, in our school the support is inadequate. But, as far as sharing that pie by vocational education, vocational education shares the available pie to the same extent that any other department in the School of Education shares. And in terms of certain kinds of allocations, like space allocations, they have a greater share of those resources. In some cases, you have got to limit your mission. For example, our service mission is circumscribed extremely severely because we don't have the funds, but we no longer pretend to perform a statewide service. But we feel an obligation to support our academic programs, and if we couldn't (and we have faced this our own school - we don't have the resources and we don't see them coming), our basic policy decision is to either close that

program or close another program in order to secure the resources to support adequately whatever we are doing. I don't think there is an answer for all institutions. For, if you have a dean or a provost who doesn't understand that vocational education is a field which has, or ought to have, its own integrity, and as a professional you can't change that, my only suggestion is bail out and go to an institution that will give at least the extent of the support it is giving to any other academic program.

Comment: But, you see, those institutions are in the majority.

Dean Cyphert: But we do the same thing in our school. We allocate funds quite differently. We have a number of areas where we settle for average and we have some other areas we try to feed. And those decisions are made on the basis of a lot of things - centrality, the likelihood of success, what you already have going for you, and that kind of thing. I allocate quite differently to the various departments in our college - not only on the basis of need but on the basis of the likelihood that its going to pay off. But, after having said that, the advice is still the same. You either have to be able to show that the money is going to pay off well if you expend it, or you're going to have to bail out and contract the nature of the program and try to do well with a whole lot less because your funds are restricted.

Comment: But the commitment of a lot of colleges of education with dual funding is differentiated. When the Department of Vocational Education can get \$200,000 from the State Department, when it comes to the allocation of funds within the College of Education, the Dean differentiates in that department because he does not allocate the same amount of money he allocated

for Guidance. He says, "you already have \$200,000 - therefore you need only \$50,000." Therefore, the commitment of the college to that department is not equal to the other departments.

Dean Cyphert: Then they ought to think about changing deans.

Question to all three: All three of you have talked about faculty as an indicator of quality, students as an indicator of quality, and then the thing that Gordon called the "nature of the substance." Ted talked about the relevance of it and Carl talked about the content. The questions, and your subsequent comments, have talked about the faculty and students and ways for them to interact, but we haven't heard very much concerning what they are interacting about. What is the nature of the substance?

Dean Dolce: From my viewpoint, there is no consensus in the field, and that is one of the problems. I have my own pet prejudices. A vocational educator who doesn't know the occupational structure of this country (and I don't mean in global form) and the trends in that occupational structure, is seriously deficient in the content area. Any vocational educator who does not know manpower trends and employment trends, and the factors influencing employment and unemployment, is seriously deficient in the field of vocational education. Any vocational educator who does not have a specialization within a service area, e.g., in the agricultural area, and know that in great depth, or in the T and I area, and know that in great depth, and be able to grapple with the complexities is deficient. For example, collective bargaining is an element in the industrial sector which is more applicable there than in the agricultural sector. There are some of the elements that I throw in, as well as the traditional

thing about knowledge of specific curricula and not only the generalized sort of thing that one would expect. I really believe that there is a content base there that people have to be interacting on, plus the sources of information. I am amazed when I talk to some people in vocational education - and my background is not in vocational education - when I know the sources of information that supposedly vocational educators don't know that are highly central to their own discipline or area of inquiry, I think they are deficient and these are the kinds of things revolving around problems which are affecting our society. The problem is that the content field itself has not been defined by the profession, and that can't be unilaterally defined by me or an individual faculty member.

Comment: You're also talking, when you list areas of concern like that, about the research domain in the field.

Dean Cyphert: I would be worried if the interactions were not more about ideas than personalities. I would be worried if the conversations weren't more about how to think about questions than they were about answers. I'm a great believer that most of what you learn in your doctoral program has a very short time span of utility anyway. And it is only learning if you know how to attack problems and how to think about them - that is basically what you carry through. Therefore, that would be the center of what I hope these interactions would be about.

Dr. Swanson: A characteristic of the field is that there are obvious disjunctures between the nature of the occupational structure and the nature of training programs. It is likely to continue. Legislation is amended every year to close the gaps or to address perceived problems. It is hard A to stay up-to-date with the changes.

One of the measures of quality in a graduate program is a certain critical mass of educational resources. It is necessary to have a considerable number of graduate faculty members to stay reasonably up-to-date with the dynamics of the field and particularly with the nature and importance of change in occupational structure. When it is possible in graduate programs to establish a sense of collegueship between students and faculty, there is at least a precondition for expanding the range of useful interaction. This was emphasized by the students this morning. I believe that there are institutions making a deliberate attempt to establish such collegueship with joint publishing and other ways of encouraging mutual involvement, where graduate students are joined with faculty in an intellectual journey.

Comment and Question: What I want to get at is a concern that bothers us in our institution. We are talking about improving the quality of graduate programs, we are talking about proliferation of programs, the improvement of the quality of the faculty, its better to look at the number you admit vs. the number not admitted as the criteria for quality programs, etc. So, I'm asking myself, what are we talking about overall in terms of quality? Is the end product to improve the total field of education? If so, then is the answer through denying certain individuals the opportunity for advanced graduate study and requiring high standards and high quality programs? Or, are we going to begin to license ourselves - to police ourselves - and say only a few selected institutions should have the right to offer advanced degrees and only a very few people within the total field of education have the right - have the capability - to seek graduate degrees? On the other end of the spectrum to policing, to allowing only the select few those opportunities, we could say essentially everyone who is in education has the right and should be allowed to enter a doctoral program and, in the end, the whole

field of education would be improved. I would like some comment on that.

Dean Dolce: I will take a stab at it. You have a multi-level question. At your institution you have limited resources, as we all have. And if you look at the whole field, we have limited resources. And so the question is, "where do you want to spend those limited resources?" Do you spend them on low probability cases or high probability cases? For every low probability case you spend resources on, you deny an opportunity to a high probability case. My comments are addressed to the whole field of education. We have mass produced doctorates in a meaningless way, and when I say "we," I am talking about the field as a whole. The production of doctorates in the fields of education is appalling to me.

On another level, we legitimize people who are less capable if we allow high risk, low probability people to go through. So we lessen the impact of those people who are legitimized. On an institutional level, I don't think that that is a decision that ought to be made from the field itself. That ought to be a fallout of the market place about whether you have a limited number of institutions that produce doctorates in vocational education. I certainly don't want the federal government to make that decision. Nor do I want the University Council to make that decision. I happen to be a believer in the open market idea and let any institution who can mount a program go ahead and do so. I'm very disturbed with this emphasis on high risk people, because I don't agree with the premise in the first place - that by legitimizing less competent people one is, in fact, doing something for the field. I think the whole evidence in medicine which are indicated by the results of the Flexner Report to which Gordon referred is that when medical programs were tightened up and in the natural fallout (not a federal decision) a number of institutions just get out of the medical game because they couldn't

afford quality programs - the inevitable effect on that was the improvement in the practice of medicine in this country. And I think the same will hold true for education in general and vocational education in particular.

And it should be added that any institution which accepts a responsibility for preparing future generations for places in the occupational structure is also tied to the responsibility of rationing the often unequal rewards available to those in various occupational pursuits. This is what vocational education is about. It is a double responsibility. The first addresses the dimensions of quality associated with individual performance. The second addresses the dimensions of quality associated with the performance of a democracy.

The school system is not always seen as an ideal location for the placement of this double responsibility. So other rationing systems have come into operation. Quality in vocational education is seen, thus, from a number of perspectives. It is most important that the concept of quality be addressed from each of them.

TASK FORCE -- The Curriculum

Chairman: Lloyd Briggs, Oklahoma State University

1. Core Courses in Vocational Education (required sets of experiences, concepts, the principles needed in the field of vocational/technical education)

Examples:

Organization and Administration of Vocational Education

Evaluation in Education and Work

Cultural Dimensions of Vocational Education

Curriculum Development

2. Vocational Specialization (Area of Concentration)

Vocational Administration

Supervision

Counseling and Guidance

Adult Education

Curriculum Development

Teacher Education

Internships

Practica

3. Support (Cognate) Areas

Philosophy

Economics

Sociology

Anthropology

Learning Theory

4. Research

Statistics

Research Design

Dissertation

TASK FORCE - Selection and Admissions

Chairman: Harold Anderson, Colorado State University

1. Do more selection at the master's degree level.
2. Look at why we should admit a student - not why a student should not be admitted.
3. Items used by institutions involved in Conference.
 - a. Graduate Record Examination (GRE) Scores (No institution had established absolute cut-off score.)
 - b. Letters of reference
 - c. Transcripts
 - d. Evidence of ability to write
 - e. Personal interviews
 - f. Evidence of leadership potential
4. All candidates for a doctoral program should go through a personal interview process.
5. Establish set periods for admission.
6. Ascertain the potential number of students to take and maintain a quality program; admit only that number of students.
7. Determine the writing ability of students prior to admission to program.
8. Use GRE and/or SAT scores as only one of many criteria to be used in the selection process.

TASK FORCE - DISSERTATION STUDY

Chairman: Carl Schaefer, Rutgers, The State University of New Jersey

The Task Force looked at the problem from three perspectives:

1. what commonalities existed in dissertation study at the five institutions represented, 2. what common problems were encountered, 3. what were some plausible solutions to these problems?

1. Commonalities in Dissertation Study

- a. Research skill subjects were taught prior to embarking on the dissertation study. These were statistics, methods, and design. Credits taken (minimum required) in these courses range from six at one institution to twenty at another.
- b. All but one institution gave credit for the execution of the dissertation research. Credits ranged from zero to twenty-four semester hours.
- c. All provided dissertation advisement as well as committee structure.
- d. All required proposal preparation before official dissertation study could be started.

2. Common Problems Encountered

- a. There appears a concern regarding the amount of credits (skill courses) required either within the department or on the outside (either in the school or university).
- b. The development of a complete and well planned proposal appears a weakness.
- c. The competency of faculty to direct dissertation research was judged to be weak.
- d. The student's ability to conceptualize the problem leaves much to be desired.

- a. The breadth or sheer number of diverse problem areas undertaken for dissertation study was questioned in terms of a lack of focus of a number of studies on a specific problem area.

3. Possible solutions

- a. Since the proposal represents a paramount step in the dissertation study, it may be desirable to focus greater attention on it by having it pass a school-wide faculty dissertation proposal committee. Weaknesses detected at this step would serve both the student and the in-service education of the adviser.
- b. When expertise for dissertation advisement is lacking in general, a Bureau of Research in a school or an Office of Research in a Department could serve to pool faculty talent.
- c. All graduate courses should be taught from a research base, thus contributing to the research ability of the individual student.
- d. Involvement of students in the research projects of professors, thus achieving a more "one-on-one" relationship, would help not only to conceptualize but to execute research in all of its aspects.

In general, we agreed the research component was indeed important, if not the most important component of any quality program.

TASK FORCE - Manipulative Points for Impacting on Controlling
Quality in Vocational Education Graduate Programs

Chairman: Dan Vogler, Virginia Polytechnic Institute and State University

1. Retain the final decision on employment of faculty members at an administrative level.
2. Make the Department Chairman appointment the prerogative of the Dean.
3. Assignments of resources must be consistent with qualitative functions.
4. Utilize appointment of graduate faculty to impact on quality.
5. Utilize continuous systematic evaluation and review process within the department.
6. Limit the number of doctoral advisees per faculty member.
 - a. no more than 9 doctoral advisees
 - b. no more than 25% of graduate faculty member's total workload devoted to advising and working with doctoral students
 - c. an average of no more than one doctorate per faculty member should be produced each year.
7. Control the appointment of the doctoral committee.
8. Control the graduate program itself.
 - a. require that the committee composition and/or the program of study that is being put forth be approved by an administrator or the administrator's designate and that the approval should be based on apriori criteria set down by the faculty;
 - b. permit the faculty to truly recommend in these areas
9. Control the examination sequence.
10. Require the faculty not in the department to participate in judgements on all checkpoints in a doctoral sequence, preferably before subjective and oral "pass-on" decisions are made.

11. Require independent evaluations of the dissertation before the final examination.
12. Try to create an environment which makes it easy for a committee to say, "no."

LEADERSHIP THROUGH SCHOLARSHIP:

LOOKING AHEAD IN OPERATIONALIZING IDEAS

Dr. Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

Introduction

As we look ahead in vocational education, I see a need to achieve a new mentality in answering questions such as: What is vocational education? More importantly, how do we, as vocational education professionals, view our profession and ourselves? Do we regard ourselves as university professors or as vocational teacher trainers? Perhaps we can gain additional insights about how we can influence the future and make things happen by attaining this new mentality.

For example, consider the definition of "vocational education." Is it capital "V," capital "E," meaning those accomplishments under the auspices of the Federal Vocational Acts? Or is it small "v," small "e"--generic vocational education? Generic vocational education represents all the ways in which people prepare for careers by federally supported, CETA or YEDPA programs, apprenticeships, corporate training programs, military training programs, or by various other means of acquiring occupational skills.

Which brings us to a key question: Are we, as a profession, legislative based or discipline based? Is our profession capital V, capital E or is it basically small v, small e? When we consider graduate education and the things we attest or certify that our graduates know and can do, do we really mean legislative based or do we mean discipline based? And, if we are discipline based, then in what essential areas should our graduate students be competent? In defining what I would call an emerging discipline, such as vocational education,

there is a need to explicate these outcomes, to articulate them with other disciplines and determine their status with respect to knowledge and practice.

I will talk about some potential solutions and ideas as they relate to institution and departmental mission, the role of the graduate student, the development of intellectual capital and five elements of quality. I will also discuss the impact and contributions of the University Council.

Institution and Departmental Objectives

An important area discussed by Al Krebs during this conference was that of institution, college, and departmental mission. All of the institutions here are land grant, implying a certain institutional set, operational context and series of expectations. Regardless of this, we need to sharpen our focus and determine what we want our department and faculty to be known for. Then we can and should become proactive with respect to that particular goal. This can be done by focusing on the specialization, strategies and advancement of our discipline in our departmental mission. We also need to consider how our goals relate to the rest of the college, university, state department and to other constituencies.

With respect to specialization and maturing as a discipline, it seems to me that we need to determine those specializations within vocational education for which we don't have the resources or the current staff or for which we don't and shouldn't plan to provide graduate education. Some attention to an essential core or foundation also seems appropriate. Consider the centrality of the research program emphasis of individual faculty. Is it unreasonable to expect some measure of specialization or focus on the part of the research and advising interests of individual faculty? And how does that relate back to departmental mission? We can specialize the focus of faculty advising and provide a programmatic structure within which dissertation topics could evolve. The question which I have often

raised is, "What studies, problems or topic areas won't you advise on?"

There might come a point at which you suggest that a student go to another university that has a stronger focus, better reputation and set of resources for that particular area. Another question we should address is--can we focus on the full range of specializations in vocational education or do we say, "This is what my department stands for and this is what we want to be known for." If someone looked at the dissertations you have directed and tried to extrapolate your professional interests and scholarship, what would they conclude?

Let me share some observations. Until two or three years ago, I did exit interviews with all the Graduate Research Associates working at the National Center. We have had over 300 coming from 18 departments of the University in 5 different colleges and schools. Most of them had worked two or more years at the National Center. I drew some general conclusions from those interviews--not scientific but more or less gut feelings. First, the graduate student inside education was anxious to begin or return to a job; their career plans allotted less time for graduate study. In contrast, those outside of education typically were younger and allowed more time for their programs. They didn't have a specific time that they had to have that degree and return to their old job. They also came with a stronger research orientation and mentality, possessed initially better tool skills and had acquired them earlier in their graduate experience. The other thing I heard from many of these people time after time was: I selected Ohio State because I wanted to do my research on topic X with Professor Y. This tells us that when they selected a department and advisor, their dissertation topic or focus was predetermined. The faculty members research interests provided the coherence for programmatic research.

When we consider departmental mission and objectives, we also think about trying to advance our discipline. Perhaps we should also think about putting

more focus on discipline based research as contrasted to immediate problem research. This brings to light the interesting push-pull between the student's interest which says, "I want to study this," as compared to the option of conducting a dissertation within a programmatic area. The latter is represented by a sustained line of inquiry growing out of a theoretical base, with a coherent body of literature and information, hypothesis testing, and cumulative results.

Another especially relevant idea is the evaluation of some kind of institutional strategy--a set of ways and means whereby our faculties could become proactive rather than reactive. By doing this, we might identify some significant research priorities and attack them programmatically in a systematic, sustained way. Consider for a moment the Guba-Getzels Model of Organizational Behavior and its two major dimensions--the nomothetic dimension--I'm heavier on the program, the structure, the organizational concerns than I am on the concerns of individual faculty. I admit that I'm stressing it to make a point. But it seems to me that if we are really talking about departmental mission and bringing about more focus, that some structure, some relationship between individual staff interests, program and plan is implied and in fact required.

When I think about the land grant institutions, I still consider agriculture as the model of institutional behavior for impacting on social problems. A College of Agriculture can bring together the departments of plant pathology, entomology, soils, chemistry and economics to impact on a critical problem like corn wilt or other topics. I don't observe a "sense of college" or orchestration of diverse interests to solve problems in colleges of education. I have the feeling that many departments exist as a loose confederation or support unit for individual faculty interests. We need to concentrate on various ways of establishing better interface with other departments of our college and university.

We also should try to get some of the other areas--curriculum, administration, exceptional children, etc.--to pay more attention to the application of their scholarship to our problem area. Conversely, determination of how we can do a more effective job of articulating or applying our knowledge to their particular areas is also necessary. Perhaps we should examine dual majors, joint appointments and staff/student exchanges.

To recap, I think there needs to be a departmental focus and program. I think that, over time, accountability in higher education and the needs of our program are going to push us in that direction.

Role of Graduate Education

Depending upon whether you define your profession as capital "VE" or small "ve," it seems that it would also be helpful to clarify the role of graduate education and some of the functions that it fulfills in our field. One, obviously, is to staff programs, to provide in-service education and credentials, to legitimize certain kinds of people for certain kinds of roles. Those tend to be the most visible. There are other less visible functions, such as producing curriculum and conducting action research and evaluations to help sustain program goals.

We have heard a lot about the need for role models and about the need for diversity in role models. I think the worst thing that we could do as professors is to attempt to replicate ourselves with our graduate students. Instead, we should be thinking of ways to help our graduate students make that leap forward, so they will represent truly a new generation of vocational educators. The question to me is, will they be legislative or discipline based vocational educators? Will they be university professors or teacher trainers?

Another concern relative to graduate studies is the application of course content as part of the graduate experience. This can be done through research internships, by encouraging students to write or co-author an article for a

professional journal or by making a presentation before a professional society. Students can also consult or solve a problem through the capacity of a faculty member. Again, referring back to capital "VE" and small "ve," where are we placing our interns and graduates? Are we placing any of them outside the federally structured vocational education program? Are we placing them in an industrial training area, in a CETA program, in a community based program? Can we make a better contribution to our profession through our graduate program in developing scholars, in addition to encouraging scholarship among the faculty? Are we recognizing these achievements within the profession?

Development of Intellectual Capital

Let me touch on what I consider one of the least visible dimensions of our graduate work: the provision of leadership to the profession through the development of scholars and the contribution of knowledge production and utilization, or what I would like to label the generation of "intellectual capital." What we seem to need more than anything right now in vocational education is additional intellectual capital and well thought out future oriented policy options.

One way to develop intellectual capital is to strengthen our institutional and state department commitments. This may mean renegotiating our interface with state departments and trying to secure more support for research and graduate education. Perhaps there are a few people on the state department staffs that ought to be adjunct faculty to our departments--they will bring a unique perspective. One of my personal goals, as I work with state directors through the National Center, is to help them evolve a new perspective with respect to investing in risk capital, to investing in people--in some professors rather than teacher trainers. We need individuals from each state on a university faculty to become familiar with the larger range issues, so that they may really contribute in a direct way

to intellectual capital.

We now have the Advanced Study Center which is a part of the National Center. Through this mechanism, we hopefully will be able to support the full time advanced study of ten to twelve individuals for periods of nine to twelve months. Apparently, we have not done a good job of portraying that opportunity to the field. Despite the short term cycles, we did not get as many applications as I had hoped, and in many instances individuals were nominating their graduate students or those just completing their doctorate. Occasionally, individuals of that dimension will be included. But, in the main, I hope that the Advanced Study Center will attract the best minds of the profession and provide them with a rich and unparalleled opportunity for full time advanced study. I also hope that during that time period, they will not only add to their personal growth but especially add to the intellectual capital of the profession.

Five Major Elements of Quality

Now, I would like to focus on the five major elements of quality that have intervention and leverage points in operationalizing these ideas and concepts. They are faculty, students, student recruitment, program development, and research. Institutional climate or press is another element, but I will weave into these other five.

With respect to faculty--selection, retention, and development--we need to move toward individual professional development plans, which should enhance and facilitate the departmental mission. If we are trying to sharpen, focus or delimit our objectives as a department, perhaps we should then consider the role of the individual faculty person and that person's area of specialization or unique concern or inquiry and how it can be strengthened and enhanced. Obviously, we could make use of sabbaticals where such programs were available but we might

also consider staff exchanges. For example, the University of Missouri exchanges a staff person with the University of Minnesota and Ohio State trades a staff member with VPI. Neither institutional budget is jeopardized, yet this provides a means of cross-fertilization for individual growth, and staff development. We also need to exploit in-place, inter-institutional options. Boulder is a few miles from here and is the headquarters for WICHE, the mechanism for inter-institutional cooperation for the west, CIC which is the Big Ten plus the University of Chicago. The Southern Region Educational Board has mechanisms whereby faculty and students may move among institutions yet still remain registered in their home college. And that may be a way of dealing with the area of focus, bringing in balance quality and quantity, yet assuring that an in-strength, in-depth option exists for faculty and students.

We need to consider some delimitations and the push-pull between quantity and quality. I sense that many of us are part of resource allocation systems which foster temptations for quantity. Many of us may be part of "credit hour" driven budgets, or funded by the regents based on graduate FTEs. So then the real challenge becomes how we can achieve quality. Do we alter the mix or the student/faculty ratio? One of the ways that we traditionally try to improve quality in education is to narrow the ratio. Graduate education is probably the most labor intensive portion of a very labor intensive industry. We can consider new allocation patterns--new ways of assigning staff time--new ways of looking at graduate classes with respect to those that could be larger and those that have to be small. Perhaps we can utilize more graduate/research associates in teaching undergraduates and free some graduate faculty time. We can schedule a seminar for individuals doing similar dissertations (programmatic) at the same time. It seems to me the key question is, how can we achieve or maintain quality with

fixed quantitative ratios? I think this represents a real challenge and requires creativity with respect to instruction and management.

Finally, as faculty members, we must recognize the need to strike that optimal balance between what we want to do and what we can do and to assure some threshold or level of quality. We must also consider the purposes for which we develop and maintain quality--more efficient use of resources, for research and development, provision of effective services to society, our institutions, and student programs. And we must ask ourselves: For what ends? Because if we focus totally on the quality issue, we could do some of the wrong things very, very well.

One of the best assessments of quality is student performance over time. We need to recognize some of the positive side effects that this has had on faculty, the ripple effect it has had in our undergraduate programs and in our relationships with the university. In evaluating quality and the graduate student, perhaps you might ask yourselves what research has been done on students' performance. I haven't heard anyone at this conference say, "We have done follow-ups of our graduates. We found this, and therefore . . . "

With respect to student recruitment, I feel we need to recruit more broadly, and not limit ourselves to those "born again" vocational educators. We need to encourage individuals to begin graduate work earlier in their careers, and in addition to recruit for the profession, not just for our own institutions. We should also reexamine what we are doing at the masters level with respect to how what influences the view, perspective and plans of young people engaged in or considering advanced graduate study. I personally feel that many times individuals pursuing a Masters at one institution might want to consider a different university for the advanced degree. Another thing that I didn't hear enough about this week is affirmative action as a part of our student recruitment. I think that is an important area that we must emphasize.

Area four is represented by program development for quality graduate education. Looking at the program structure, the aspect which I think needs the most attention is "core." The essential dimension of core is the social disciplinary context for our profession. We should no more educate physicists who do not understand the social, ethical and moral implications of building a hydrogen bomb than we should prepare vocational educators who do not understand the interaction of their profession with this country's economic, sociological and political trends and issues. And that refers back to one of my initial questions--What is vocational education? As a profession, are we legislative based or discipline based? We need more explication and agreement on this--not that all universities should agree in lock-step, but there is a need for a lot more discussion of "core" dimension.

Looking now at research as kind of the final intervention area, I will reiterate that it is the heart of graduate education. Research bearing on our conference agenda has been cited only twice here--once by Vice President Neidt and the other by Dean Cyphert. Yet we claim to be research institutions, and I haven't heard research cited as a reason for what we believe or what we ought to do. I guess the question is, as land grant institutions that have significant missions in research, have we really internalized research as a way of helping guide programs and as a real obligation of staff? The idea of introducing research earlier in the graduate sequence, in addition to the dissertation--is excellent. It has also been pointed out that we don't do as much replication of studies in education as some of the other areas. Perhaps outstanding dissertations or research conducted at other institutions ought to be replicated in our states. This might provide a way of inducting graduate students into the research experience and getting them to feeling comfortable and positive towards research much earlier in the program and add to the cumulative impact of our studies.

Another question is, in what way can research provide a vehicle for program development? For example, can we cluster a group of dissertation studies around a group of subproblems that will add illumination and information data needed for strengthening and extending our graduate program? Referring back to departmental mission this might be accomplished if faculty persons achieve some measure of focus and specialization. Perhaps if a student in your institution says, "I want to do something curriculum related," maybe there is only one person on your staff that ought to direct that dissertation. Are there certain areas or topics where you would say, "we don't have anyone" or "we're not able to direct that dissertation." And how are we using our research programs as the basis for our graduate instruction? Is our graduate instruction based on our research findings or is it basically our personal experience? And how effective, applicable and durable are our experiences?

With respect to research priorities, there are two major ways we could go. One is a kind of needs assessment, which is essentially finding out "where people itch" and formulating a resolution of those problems through the scientific method. The other is a more programmatic sustained approach. This approach is not only concerned with problem solving but also has as a goal contributing to a cumulative, organized body of knowledge and advancing vocational education as a discipline. In my mind, this is what the major research universities which we represent should pay attention to in their graduate programs.

University Council

To conclude, I will comment on some things which I hope will be of interest to the University Council. The University Council represents one of the most significant developments in vocational education. I think we have made good progress. I particularly want to commend Chairman Jerry Moss, the Trustees and the Program Committee for their contributions to the organization and particularly

Joe Clary and members of your committee for a most stimulating professional development experience.

I'm going to be presumptive and suggest a potential new theme or statement of purpose for the Council, "Leadership Through Scholarship." I think if we are going to be effective as a Council, we're going to do it primarily on the basis of rational evidence, research findings, and well reasoned position papers--not from key contacts with a congressman, senator or other key figures with political clout. I feel that our ultimate reason for being and area of contribution is leadership through scholarship.

I think the first paper published by the Council is a good one, and it should be followed with additional papers. Let me suggest some candidate topics. One might be, "What are the Foundations of Vocational Education?" This paper would define "core" and further discuss the core experiences, insights, and knowledges needed. Another topic might be, "What are Some Potential Institutional Strategies for Strengthening Our Research and Development Efforts?" A third topic, "An Examination of the Shifting Context for Vocational Education" which would discuss shifting federal role and policies, demographic trends and their implications. When you consider the "graying" of America and our becoming a four generation society, some of the implications are staggering. What will happen to the changing occupational structure and the state of knowledge production? How will this affect knowledge utilization in education in general and vocational education in particular? Another topic might be: "Undergraduate Preparation or Credentialing Programs," which in some instances might involve masters degrees. What is our role and what are some of the quality considerations there?

The Council might want to consider fostering staff exchanges. Perhaps we could be of help to each other and assist in providing visitation teams at the request of an institution. Maybe we, over time, should think of ourselves as an

informal accreditation agency. We could provide an external review of an ongoing program, make some suggestions for strengthening, and give the home base some clout with the administration and other internal policy groups. There is also need to sponsor more meetings like this one. We would be pleased to try to co-sponsor some of these through the National Academy. Some of you, as host institutions, might want to co-host seminars or workshops with the National Academy. In addition to the institutional representatives present, perhaps we should consider further discussions on quality in graduate education. If not nationally, maybe on a regional basis in which several institutions bring together their faculties.

Another challenge I see for the University Council is becoming proactive in building a discipline in vocational education. What can we do to educate each other and those I would label as significant others--deans, state directors, graduate deans, individuals representing other disciplines? I was in a meeting in Washington about a month ago sponsored by Henry David, who is directing the NIE evaluation. He had some distinguished manpower economists present--one of whom was Herb Parnes from our campus. Herb is doing the longitudinal study of labor market behavior. At the end of the meeting, Herb said, "I never dreamed that you had the problem of just determining what is a vocational student for research purposes, and for purposes of operating state management information systems." I feel the Council could do a lot in meetings, in stimulating the involvement of these people, in helping us educate each other.

It might be helpful to provide feedback on this meeting. I would like to see each institution report back two items, two activities, two ideas that they took hold of and that worked, ideas that made a difference in quality graduate education. I would also like some input on what we can do to strengthen the research base that undergirds our mission.

And again, let me say that I think the University Council is off to a good start, that our planned seminar for this fall on International Perspectives and Dimensions of Vocational Education ought to contribute a great deal. We are pledging our support and cooperation to Carl Schaefer and the Committee.

In closing, I think we have some unparalleled challenging opportunities to provide new levels of service and influence and the best way we can do this is by leadership through scholarship.

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